SMITH MIXERS *and* PAVERS

CATALOG NO. 528

SMITH CONCRETE MIXERS *and* PAVERS

CATALOGUE NO. 528

THE T. L. SMITH COMPANY
MILWAUKEE, WIS.

SALES OFFICES AND SERVICE STATIONS
IN ALL PRINCIPAL CITIES

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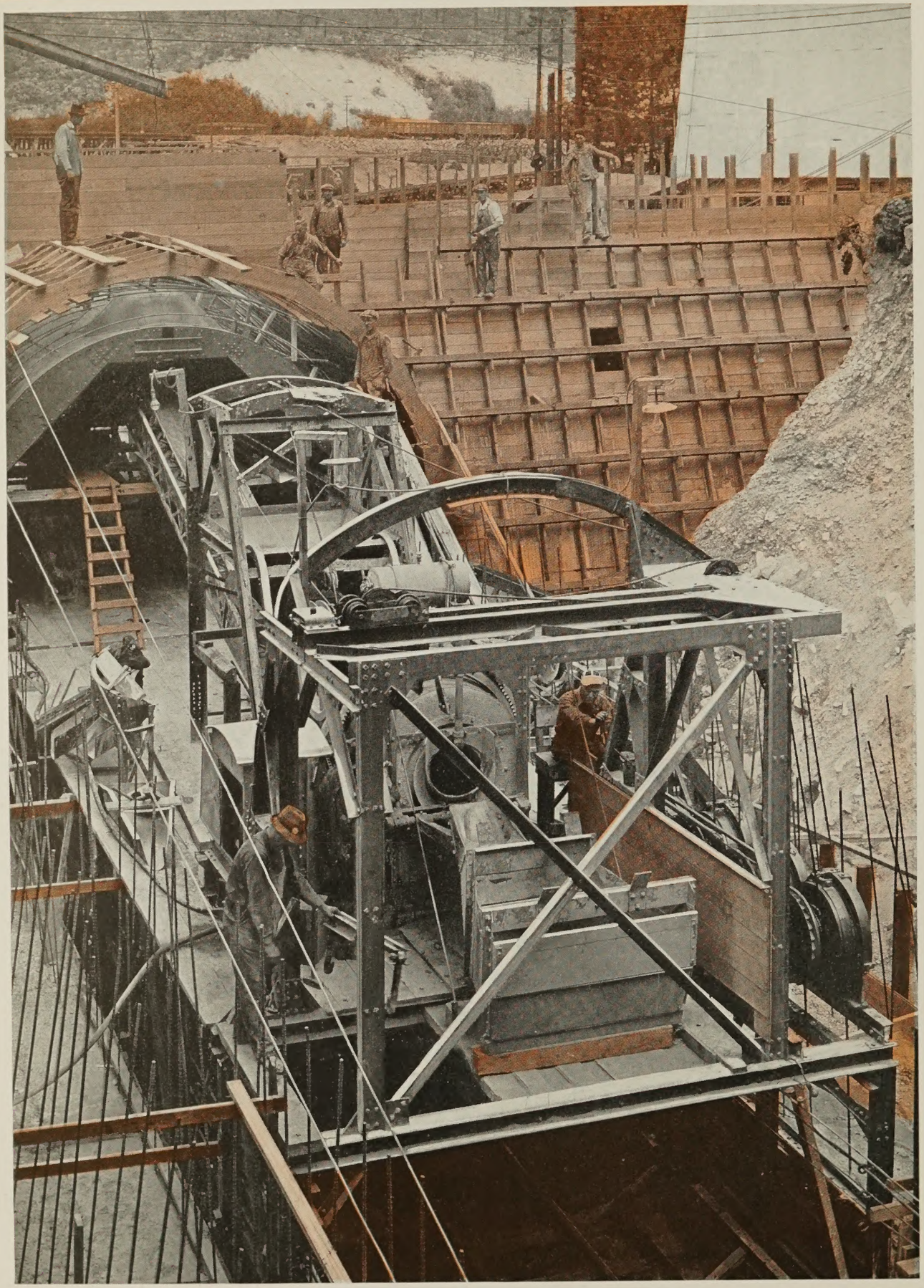


Cascade Tunnel for The Great Northern Railway—A Guthrie & Co., Contrs., St. Paul—Eight Smith 14-S Non-Tilters used.

Knowing How Since 1900 Means Profitable Extra Yards Today

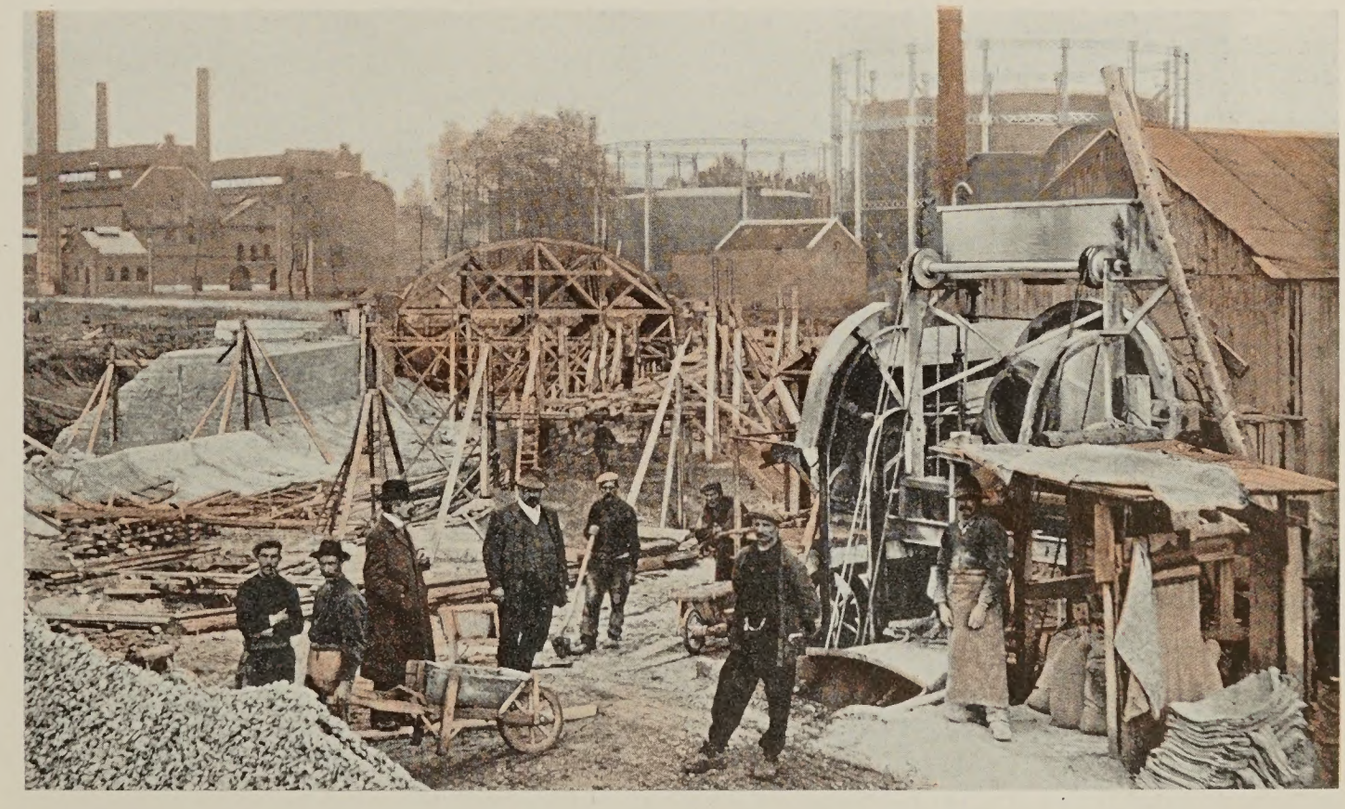
EVEN the simplest implement of today is the result of years of continued study and improvement since its first inception.

And when a contractor places a Smith Mixer on his work, he is using a product built by a manufacturer, who has led in building concrete mixers for 28 years. A Smith Mixer today is the product of all of these years of intelligent technical effort by the manufacturer supplemented by the valuable suggestions of contractors and engineers.

And nothing can take the place of judgment gained from long experience.

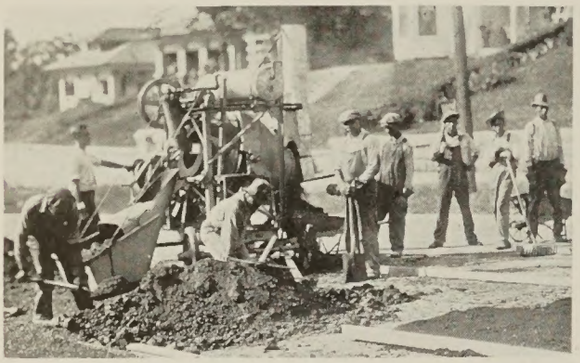
The late T. L. Smith, a great engineer and one of the pioneers in the industry, performed most of the original research into the behavior of concrete during mixing, and his early discovery of the famous "End-to-Center Action" has never been improved upon. Laws discovered then have survived as unchanged as the law of gravity. And Smith patents reserve the advantages of this early research for Smith users only.

Starting with a fundamentally fast and thorough End-to-Center Mixing Action capable of producing "Smith Specification Concrete, uniform to the last drop", it has only



Concrete bridge work in Brussels, Belguim, Devreux and Dessert Contractors — the efficiency and dependability of Smiths have caused them to be built under license in four European Countries.

remained to constantly improve and speed up the mechanical features. Small mixer, or paver; — the drum is the thing and all other parts are mere accessories.



7-S Smith Tilter discharging sticky rock asphalt — mixer equipped with burner for driving off moisture — Crown Rock Asphalt Co., Cincinnati, Ohio.

"Uniform Specification Concrete" is the demand of contractors and engineers to-day. And Smith engineers, not content only to perfect the mixing action, have turned to the accurate measuring of the mixing water. The water measuring system, radically different from anything heretofore in use, gives accuracy to the ounce; — to satisfy even the most exacting requirements of the "water-cement ratio."

Speedy for Bigger Daily Outputs

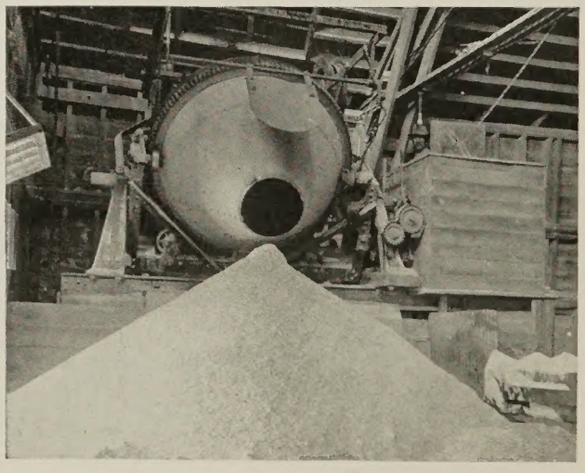
Where the quality of concrete is closely scrutinized, you will find Smith Mixers, and it is gratifying to see owners of Smith Mixers given preference when bids are investigated. And to-day is the day of speed and big outputs. The cycle of a batch of concrete in the Smith is fast. Big skips and hoppers quickly take the batch and empty it into the drum; — the mixing time in many cases is specified; — but the fast discharge saves seconds on every batch. But the time per batch divided into the working minutes per day, or week at best represents only the theoretical maximum yardage. There are the unseen factors such as construction, and simple and dependable mechanism that really insure the extra profits and extra outputs in concrete work.

More than 28 years of experience means bigger profits for you *and nothing can take the place of judgment gained from long experience.*

For Mixing Other Materials

Smith Mixers of both the tilting and non-tilting types have been used with marked success in mixing entirely dry batches such as are required in glass plants, chemical plants, baking powder plants, enameling plants, and in the manufacture of rock fertilizer. They are also widely used in mixing core sand in foundries, in mortar mixing, in cold patch road repair work and in the preparation of natural rock asphalt for placement.

The outstanding ability to mix and discharge totally dry or sticky material gives to Smith Mixers this wide field of usefulness.



And in Glass, Enamel and Chemical Plants Smith Tilters mix entirely dry materials. Consolidated Window Glass Co. Mt. Jewett, Pa.

Making Concrete to Specifications

Smith "End-to-Center" Mixing

Concrete is new as construction materials go. It is produced on the job under widely varying conditions with resulting wide variation in strength.

Cement has been standardized and the ratios of fine aggregate, coarse aggregate, and water have been given much study.

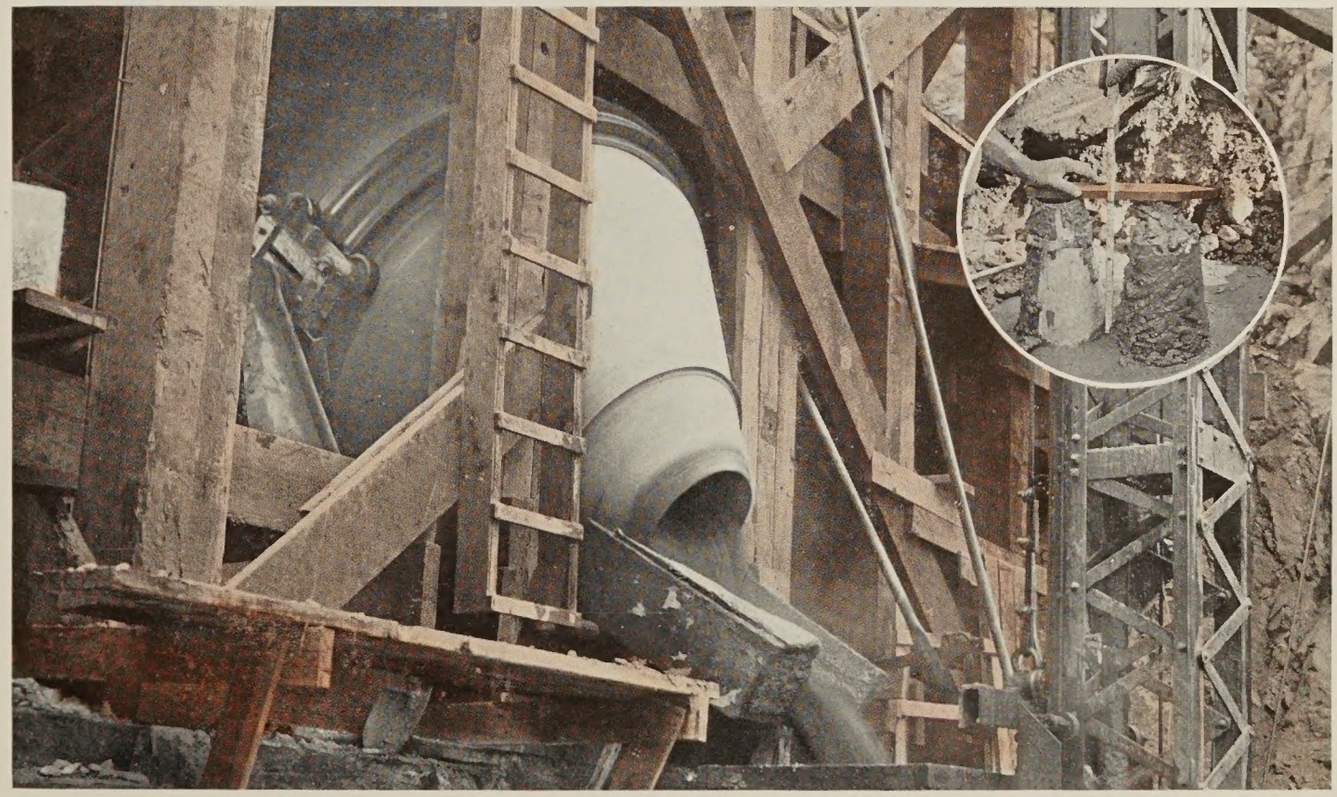
And now, contractors and engineers are scrutinizing the concrete mixer; — the machine which receives carefully graded and selected aggregate and accurately measured water and either turns out high strength concrete with every particle of stone completely coated with cement mortar or pours out a weak, badly separated mass.

The efficiencies of mixing actions vary widely and there is a wide variation in the strength of the resulting concrete.

The Standard Mixing Action

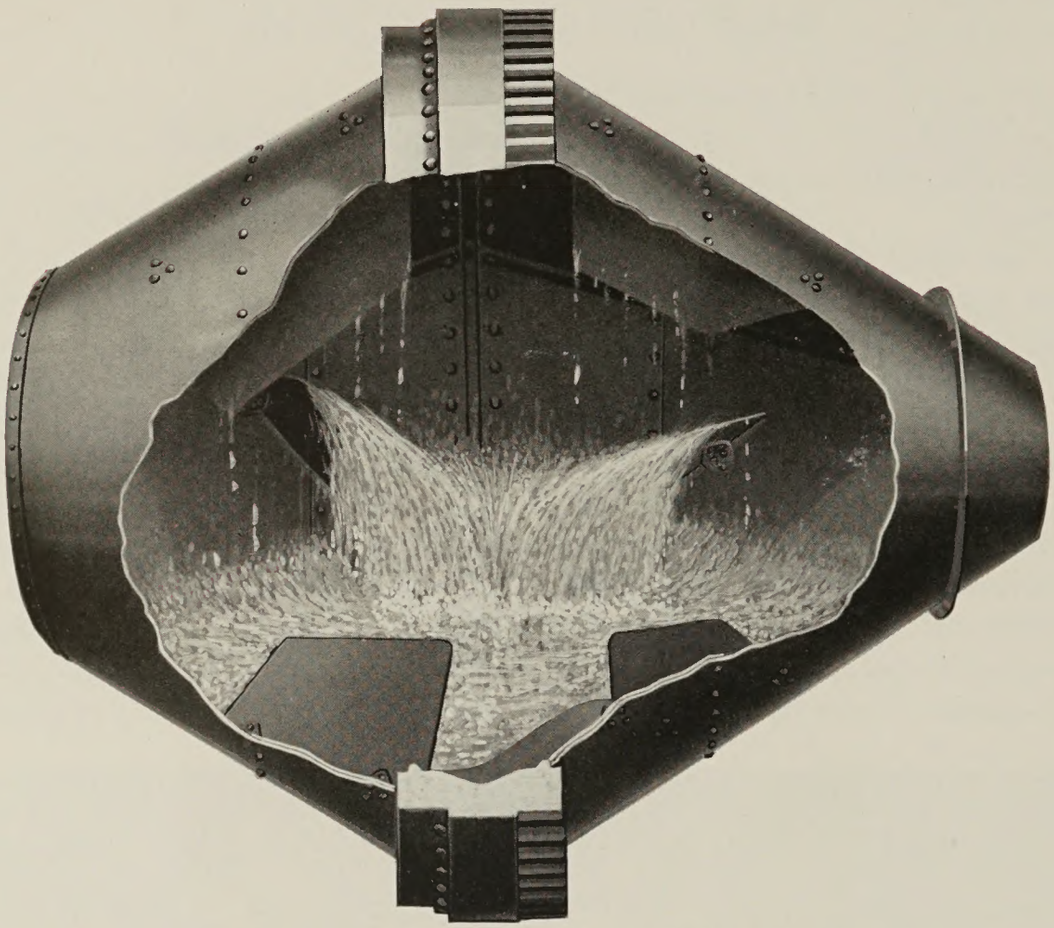
"Smith Specification Concrete — uniform to the last drop" is the product of the famous Smith End-to-Center Action. It is the standard mixing action: — used in the testing laboratory as a basis of comparison.

The Smith mixing action in both the tilter and non-tilter mixers is extremely vigorous. The converging blades in both types cut thru the concrete and pull it from the ends to the center. During this process, the blades fold and squeeze the aggregate. Meanwhile, the revolution of the drum carries the



On the Sierra Madre Dam, Claude Fisher of Los Angeles used a 40-S Tilter and the specifications were for dry concrete with only a ¾" slump. Smith Tilters and Non-tilters make it easy to meet such specifications.

The Famous Smith Tilting Drum



Smith "End-to-Center" Action — sloping cones and "V" blades and uniform concrete — fast discharge and non clogging — the standard Mixing Action — perfect for dry concrete

concrete up and showers it onto the lower blades and the floor of the drum. The concrete is vigorously compacted in striking the floor and it flows from the center to the ends to be picked up by the next blade, and the mixing repeated. Repeat mixing starts immediately and the big full width blades are at work on the concrete continuously.

The folding action and the compacting of the batch effectually prevent separation of the aggregates.

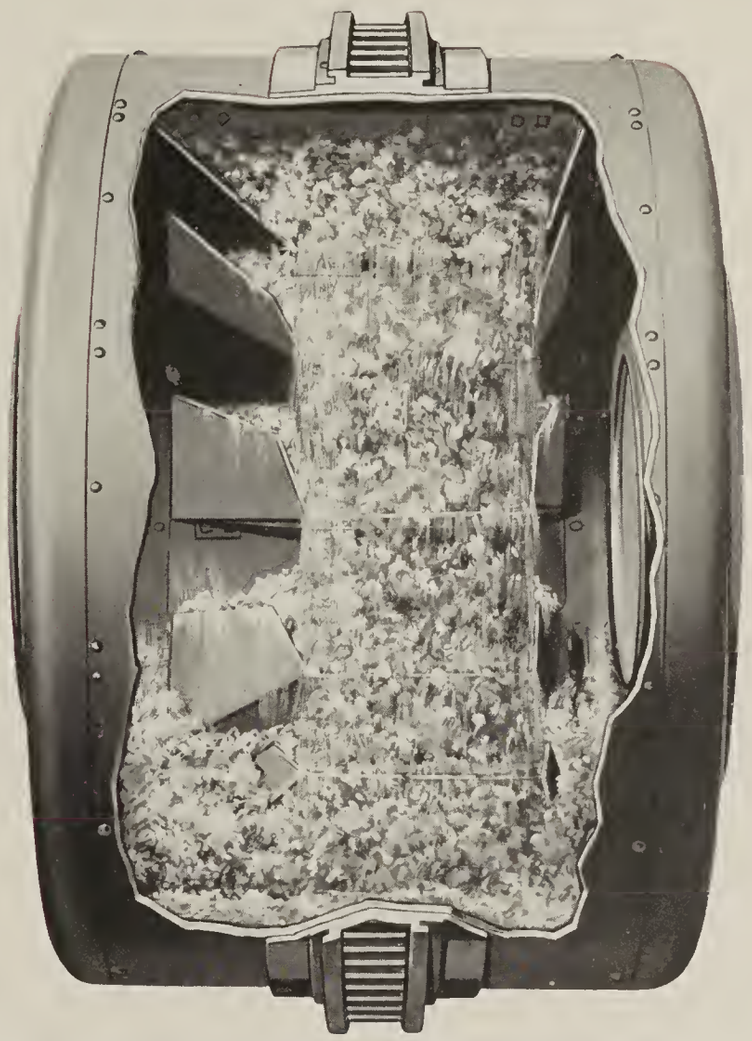
The double-cone construction of the tilting type gives to the concrete a gravity flow from the ends to the center of the drum; further accentuating the famous "End-to-Center Action".

The large diameter and narrowness of Smith non-tilting drums, with their fast mix and discharge make them virtually the equal of the famous Smith Tilters.

For Accurately Designed Structures

The ability to consistently produce "Specification Concrete" of definite required strength has made Smith Mixers the choice for accurately designed concrete structures. The huge Conowingo Dam of the Philadel-

The Smith Non-Tilting Drum



And again the famous Smith "End-to-Center" Action —Ten big full width buckets— a big diameter deep drum — faster mix and discharge balanced at the center — self cleaning with dry concrete.

phia Gas and Electric Co., the famous two mile Mendota Bridge near Minneapolis, and the mammoth Wilson Dam at Muscle Shoals come to mind as typical of Smith mixed projects.

Made to Order for Dry Concrete

The fewness of the blades and the absence of sharp angles make Smith mixers far superior in mixing and discharging dry batches. In the tilting type the batch is poured out; — nothing can stick, while the big blades in the non-tilters hustle the batch out to the last drop.

And all blades are mounted clear of the drum shell permitting continuous scouring beneath. The drum heads are of steel plate and rounded to prevent concrete from sticking. The curved heads are also an aid to the end-to-center action.

The steel plate of which the drum is built resists the building up of concrete.

THE FAMOUS WILSON DAM A
The largest dam in the world and containing 1,400,000 cu. yds. of concrete — built by the U. S. Engineers usin

MUSCLE SHOALS, ALABAMA
x 56-S and two 112-S Smith Mixers — Smith dependability brought this monumental project to completion.

—and Fast Discharging Made Faster

The tendency to-day is to lengthen the mixing period and where the speedy mixing of Smiths can not be taken advantage of, the speed of charging and discharging are more important than ever.

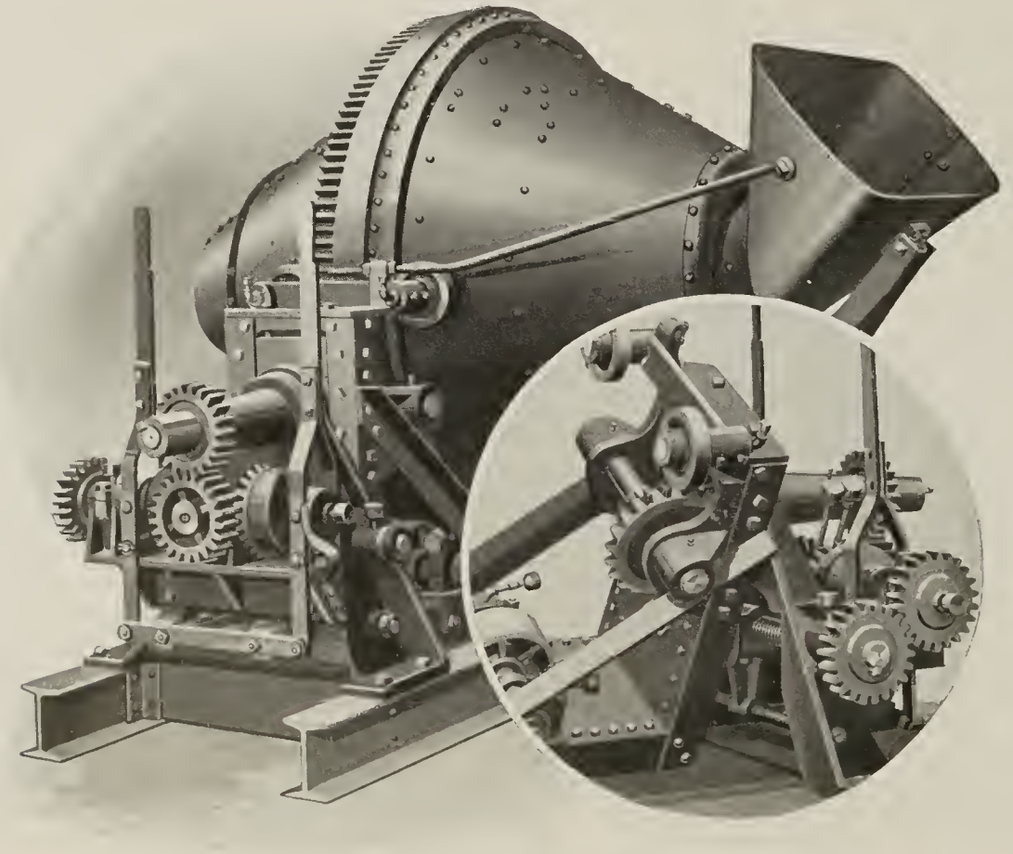
Just Like Emptying a Pail

Smith Tilting Mixers are discharged by tilting the drum, just as you empty the water from a pail. Dry mix or wet the discharge is equally fast. Dry concrete can't clog and because the batch is poured out rocks up to 10 or 12 inches can be put thru the larger sizes; a big advantage particularly on dams and other heavy concrete structures. While the drum is being tilted the blades are cutting thru the batch and effectually prevent segregation.

The drum is power tilted except on the 10-S and smaller sizes and is under easy lever control.

Big Full-Width Discharge Buckets

And Non-tilting Smith Drums are large in diameter and narrow;—with big openings. Big discharge chutes can be used and Smith chutes are semi-circular to take full advantage of the circular opening. A drum of big diameter permits the use of extremely deep discharge buckets;—more concrete carried up to the chute in less time;—far faster discharge than ever. And the number of buckets has been increased;—varying from eight to ten depending on the size of the mixer. And



The simple and rugged power tilting unit — the operator pulls the lever and power does the rest — cut screw and replaceable bronze nut.

—and What a Smooth Running Drum

the chute is swung in two-thirds of the way across the drum; — the concrete can't drop back and out it comes in a swift slide.

Unbalanced loading and violent throwing of the aggregate during mixing are the most destructive forces in the operation of a mixer.

Big full width discharge buckets — mounted clear of the shell — self cleaning — faster discharge with wet or dry concrete.

The blades in Smith drums are symmetrically placed as regards the center with the batch balanced at all times.

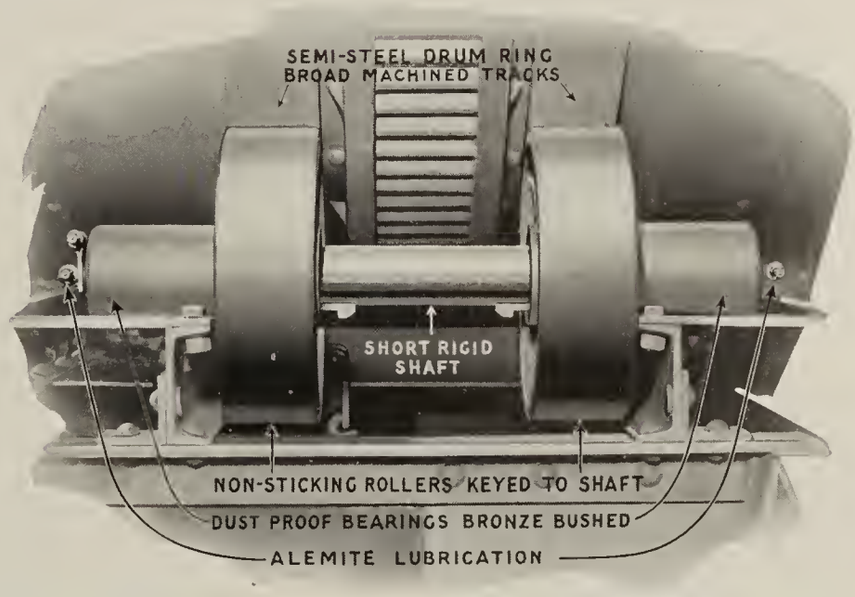
Center Drive and Support

Smith drums are driven and supported at the center which is also the center of the load. In other mixers where the batch is unbalanced end support is necessary. The Smith central ring gear and roller tracks comprise a single semi-steel casting and both roller tracks are machined at one setup insuring a smooth running drum.

The Smith shell and heads are of high carbon steel boiler plate longer wearing and lighter in weight than cast iron.

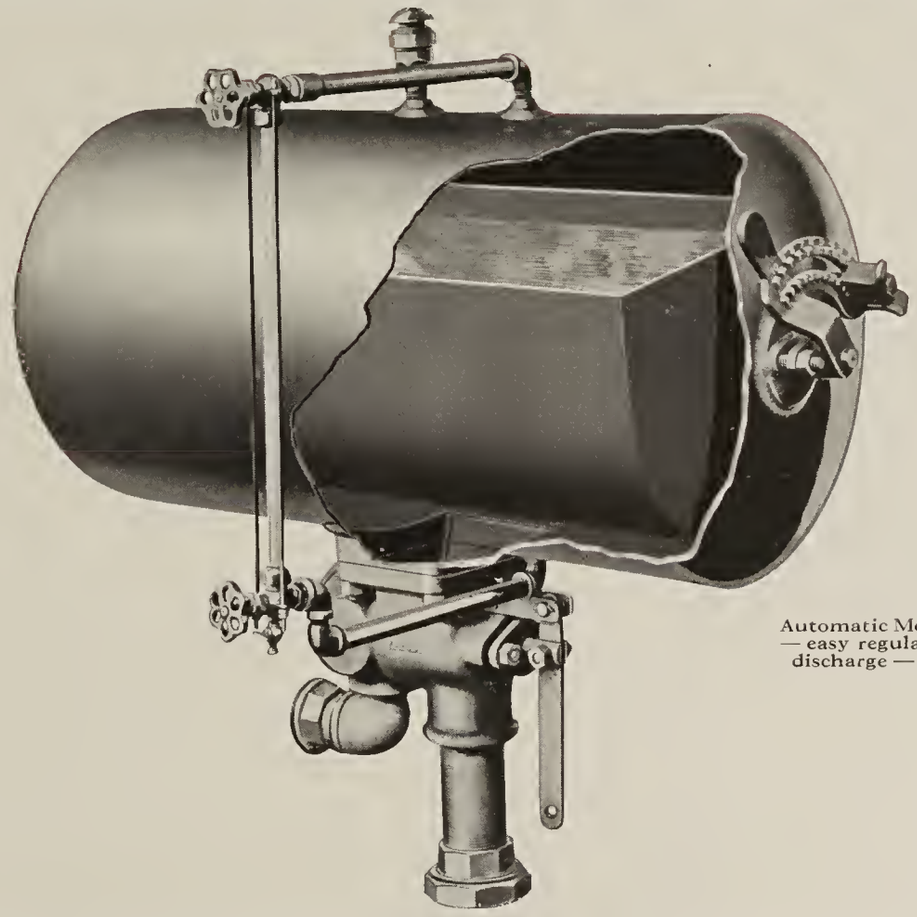
The balanced batch, possible only with the Smith patented blade construction, eliminates the violent strains set up in unbalanced drums. And this insures longer life not only for the mixing drum but for the support and drive members as well.

And incidentally it insures uninterrupted operation; — Dependable Smith Operation.



A battery of 3½-S Tilters pouring dry concrete for a tennis court, Los Angeles, Lassen Bros., Contractors.

Accurate and Easy Water Control

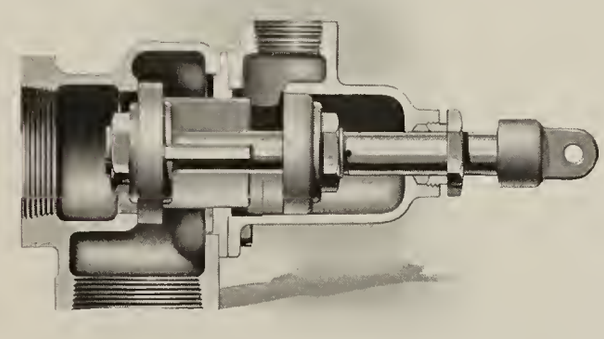


Automatic Measuring Tank — easy regulation — center discharge — self cleaning

The Smith Water Tank is designed to meet the exacting requirements of the water-cement ratio. Accurate control is possible because of the large number of divisions on the regulating segment. And regulation is positive and easily made.

It is accomplished by retaining in an inner trough a definitely determined amount of water; — leaving the remainder of the tank capacity available for discharge.

The water enters and leaves the tank thru a large opening in the bottom insuring automatic cleaning of all sediment.



Three-way valve with rubber disc — leakproof — easy operation — self cleaning

And a Leak Proof Valve

The Smith Piston Type Valve is another evidence of Smith pioneered design. Standard rubber discs seating against machined surfaces eliminate leakage and further insure delivery of the accurately measured water to the mixing drum.

The Smith Piston Valve has eliminated a constant source of trouble on mixers and pavers.

The Jordan Dam of the Alabama Power Co. on the Tallapoosa River — two 112-S Tilters poured the concrete.

Speedy Stream Line Charging Skips

Quick loading of the skip and quick emptying into the drum are more important to-day than ever before.

And the new Smith Non-Tilting drums of large diameter have large drum openings permitting the use of fast big throated skips. Smith skips are wide and low at the back for unusually fast and easy wheelbarrow charging.

They are liberally designed and from the back to the throat the sides form unbroken stream lines; — not a corner or a bottle neck to retard the flow and the batch goes into the drum in a swift clean slide.

Extensible Track Loader

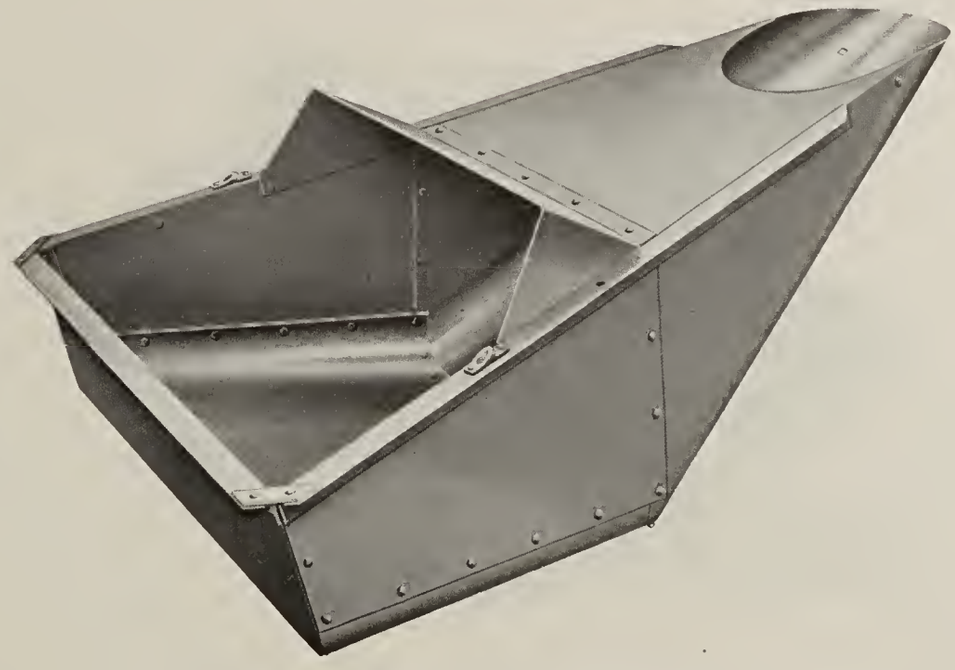
For Smith Tilting Mixers in the 14-S, 21-S and 28-S sizes a track and car type loader is standard equipment.

The skips follow the usual liberal Smith design and are popular because of their speedy action. Because they ride on rollers the strain from the heavy batches is less. This construction also permits a steep discharge angle.

The track can be readily extended to serve as a material elevator at slight expense and permits mounting the mixer high enough for discharge into trucks, hoppers or chuting. On jobs, such as retaining walls and track elevations, this proves a very desirable feature.

The 28-S Tilter with loader, because of its size, makes a very effective unit on heavy concrete structures.

Track loaders are not available on Smith Non-Tilting Mixers.



Smith skips are low at the back and wide for easy charging — the throat is big and fast — no bottle neck to slow the emptying.

Patelli and Wilson with a 10-S Smith Non-Tilter — Holland Tunnel entrances New York City.

A large addition to the Goodrich Plant at Akron — Carmichael Construction Co. — two 28-S Smith Tilters and previously used on the large Fisher Body Plant at Cleveland

Simple Drives—with Fewer Parts

At no point is the simplified rugged design of Smith Mixers more apparent than in the main drive assembly.

The shaft turns in two liberal babbitted bearings, which are self-aligning and are carried by the main frame channels and are rigidly supported.

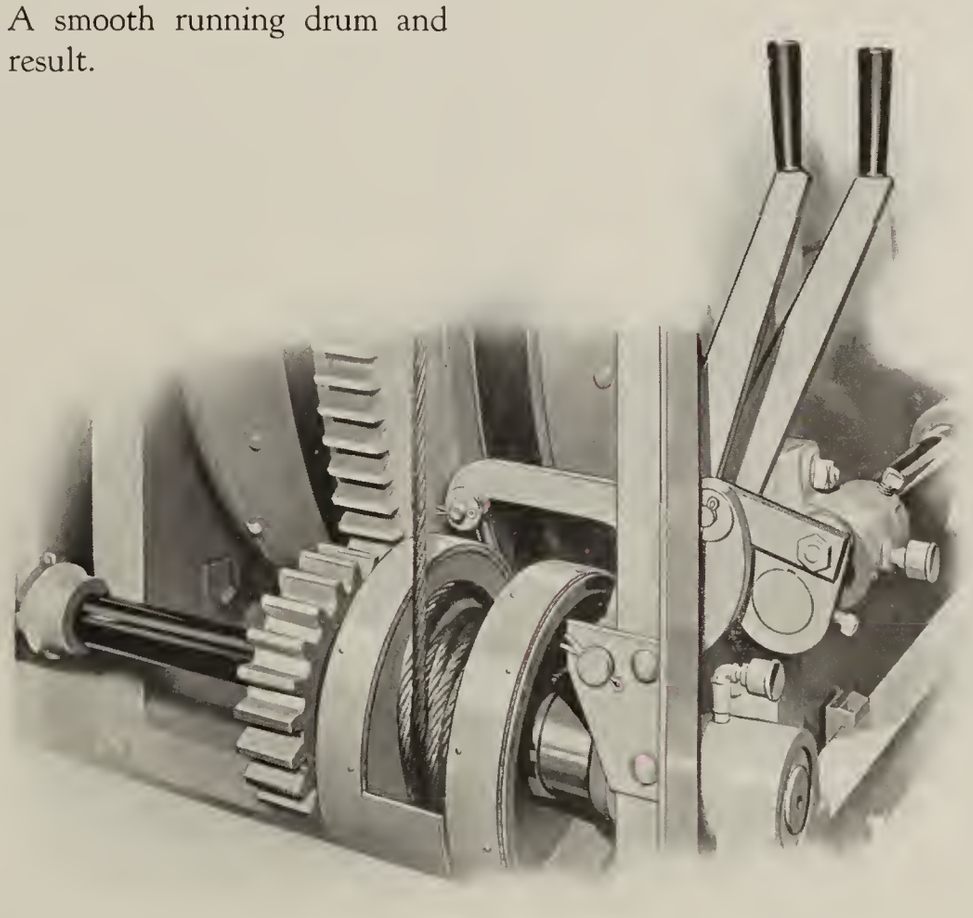
On the drive shaft are carried the big reduction gear meshing with the engine pinion, the drum drive pinion at the center and the hoist unit for the charging skip.

The drum pinion revolves upward and readily throws out material which might otherwise damage the teeth. It drives the drum at the center which is also the center of the batch. A smooth running drum and shaft are the result.

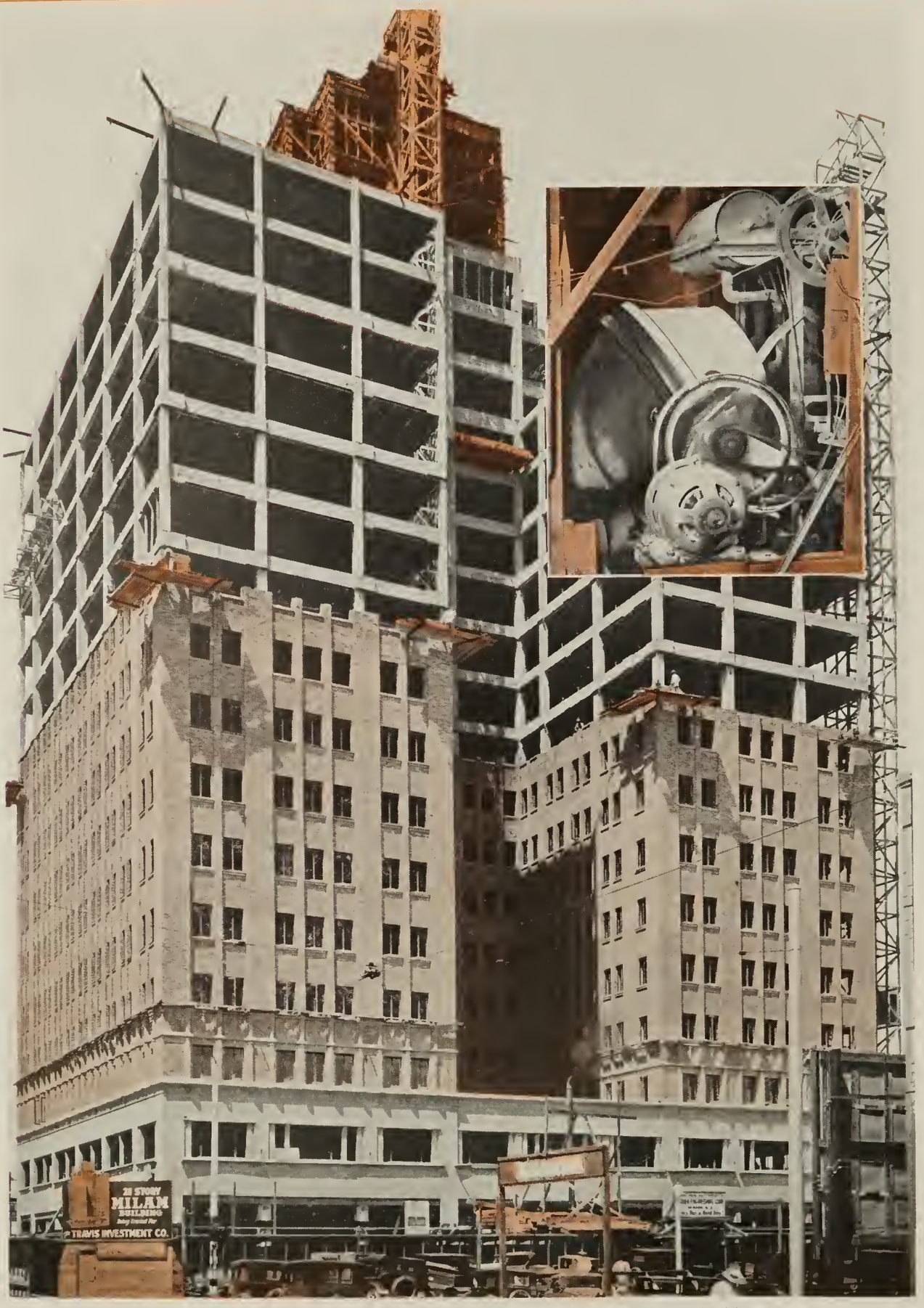
The hoist clutches and brakes on all Smith Mixers are of the band friction type; — like the wheel brakes of your automobile. Band clutches can be relined in the field; the operating levers readily forged in any blacksmith shop; and the band removed without disassembling the shaft.

And band friction clutches have been used on hoists, cranes and shovels for years. Simple, easily adjusted and repaired, and all of these, advantages of real value to the contractor.

And simple construction can never be anything but an advantage.



Countershaft with drum drive and hoist unit — fewer parts and fewer repairs — self aligning bearings — and simple band clutch and brake.



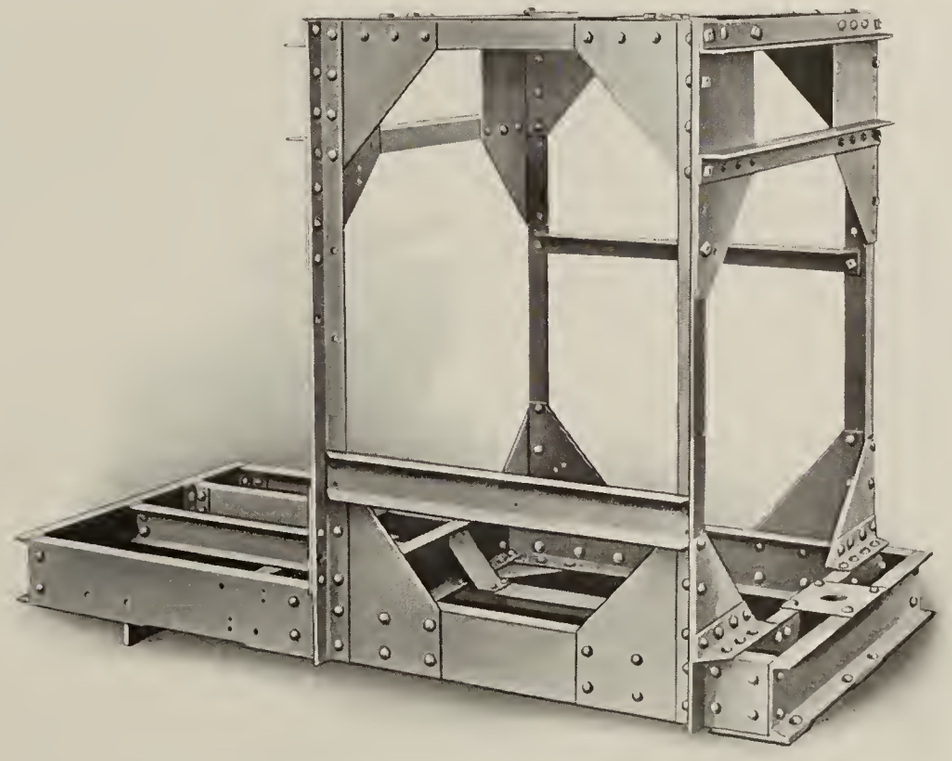
Milam Bldg., San Antonio — one of the world's highest reinforced concrete buildings — concrete by a 15 year old 14-S Smith Tilter — L. T. Wright Construction Co.

—and Husky Single Unit Frames

Smith main frames are riveted into a single rigid unit. They are built of unusually heavy channels with cross channel members placed to give maximum rigidity. Two cross channels at the front bridged top and bottom by heavy steel plates give the rigidity of a box girder. A heavy plate over the rear of the frame which serves also as a base for the engine gives similar rigidity.

The weight of the mixing drum and batch of concrete is carried directly on the main channels instead of on weak auxiliary frame members. The boxes carrying the roller shafts are underslung on these channels and the shafts run in self-aligning bushings. This method of supporting the drum is the best possible insurance against misalignments and is just another reason for the long life and dependability of Smith Mixers.

The underslung rollers permit lowering of the mixing drum with a consequent lower center of gravity. The frame is supported very low on the axles to further increase stability. An adjustable jack on the front axle gives a four point support to withstand the strain incident to raising the skip.

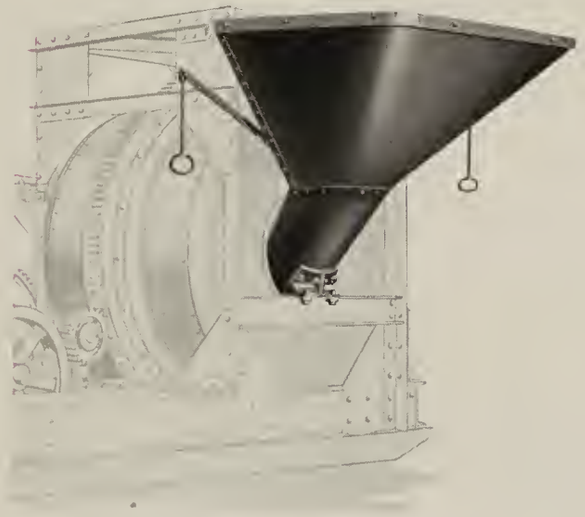


Built to stand the gaff — heavy frame members and gusset plates — solid riveted into a unit — an important factor in Smith Dependability.

Cement Storage Tanks — Colorado Portland Cement Co., Boettcher, Colorado. — Two Smith Mixers poured the concrete

Standard Smith Tilters mix mortar as readily as concrete — fast discharge and no clogging

Batch Hopper for Tilting Mixer
Note Batchmeter and Discharge Lock



Batch Hopper for Non-Tilting Mixer.

Batch Hoppers

The batch hoppers shown on this page for tilting and non-tilting mixers are designed for use in conjunction with overhead bins and measuring devices. They permit the assembly of a second batch while a batch is being mixed in the drum. Large hopper openings allow speedy charge and discharge.

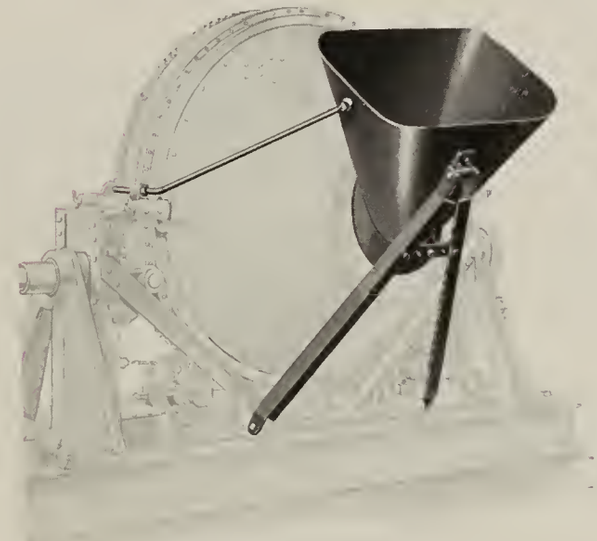
They are provided with lever-operated sliding gates and if desired the control lever can be extended above the top level of the hopper. In such cases the other control levers are also extended to permit operation of one or more mixers from a central overhead point.

Batch hoppers for tilting mixers are supported on separate frames and the hopper is sold with or without frame. Hoppers for non-tilting mixers are sold complete with attaching members.

Feed Chutes

The feed chutes shown herewith are not gated and serve merely as guide chutes for material discharged from overhead bins. The chute for the tilting mixer tilts with the drum.

Occasionally a platform is built and the aggregate dumped directly into the chute from wheelbarrows.



Feed Chute for Tilting Mixer

Feed Chute for Non-Tilting Mixer.

Useful Accessories for Smith Mixers

The accessories shown on this and the opposite page increase the utility of Smith Mixers on special jobs.

Extended Track Loader

The extensible track loader originated by Smith Engineers many years ago is extremely useful where a high discharge height is desired. On bridges, retaining walls, for direct discharge into motor trucks and for many similar uses it eliminates the need for handling equipment for unmixed material and in some cases replaces special elevating equipment for the mixed concrete.

On a large reservoir job, the mixer was placed at the top of the bank and the loader track extended to the foot. It has found wide use on many types of railroad work.

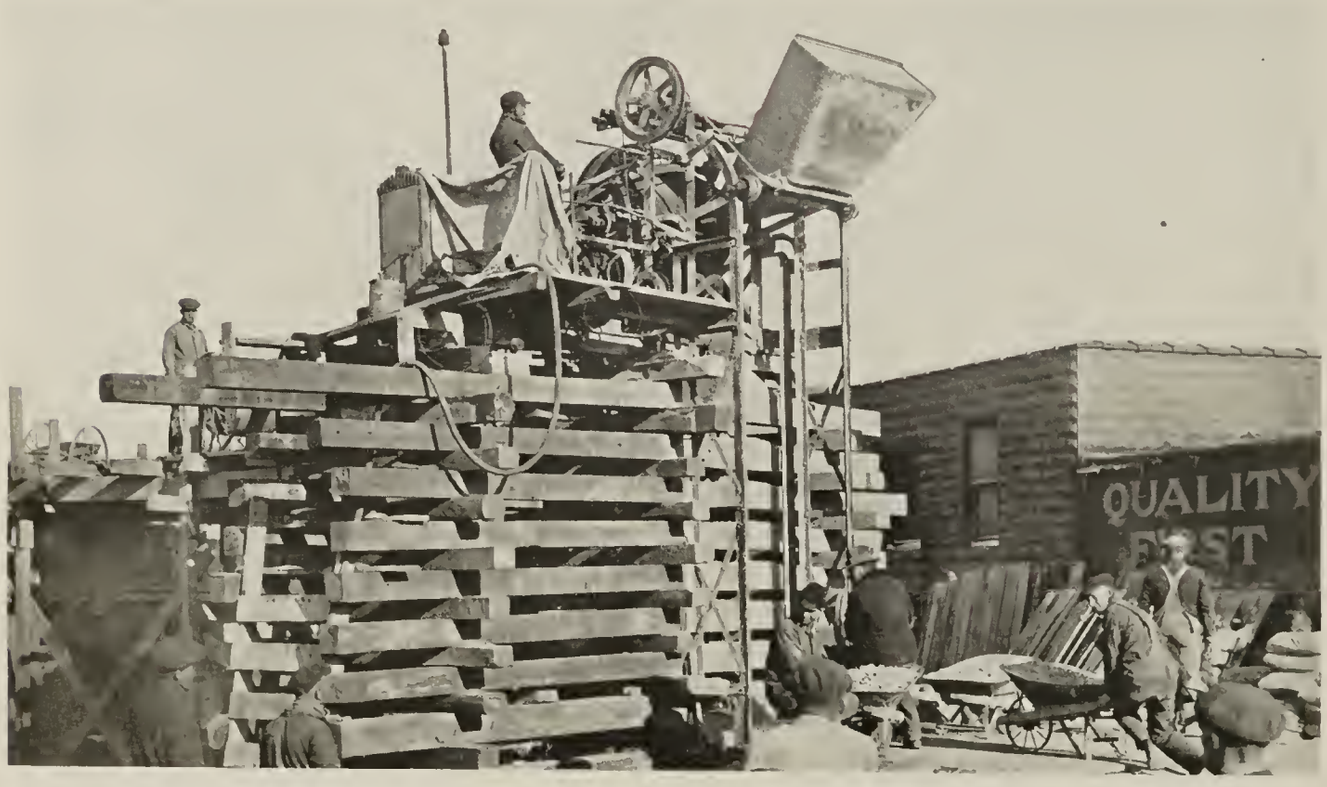
The track type loader and extensions are available only on the 14-S, 21-S, and 28-S Tilting Mixers and can readily be added in the field.

Crosswise Trucks

On the opposite page is shown a Smith Mixer mounted on crosswise trucks to give end discharge like a paver.

This makes it a useful unit for curb and gutter, sidewalk, small alley or street and conduit work.

The 7-S or 10-S Non-tilters can be had with this equipment and a winch can be added for drawing the mixer along the work by securing one end of the cable to a "Dead Man" behind the mixer.



Ideal for bridges and retaining walls — Smith track loader with extension eliminates material hoist or concrete elevator.

Self-Contained Material Hoist

And the winch used for drawing the mixer can also be used as an auxiliary material hoist. It can be furnished on either the 7-S or 10-S Non-tilting mixers and its capacities can be found under the specifications for these mixers on page 47.

Auxiliary Water Pump

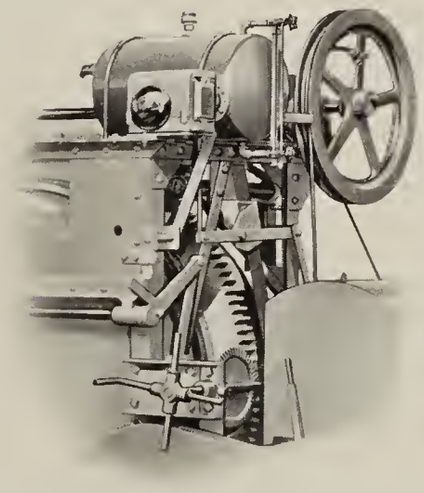
Water pumps mounted on the mixer and driven by the mixer power plant are very useful for the bridge and culvert contractor who must of necessity draw water from creeks or other supplies.

These pumps are of the rotary type and are gear driven. They are available on the 5-S, 7-S and 10-S mixers in both tilting and non-tilting types.

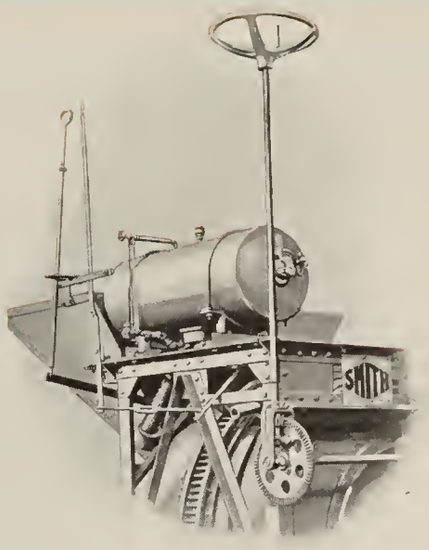
Batch Timing Devices

Batchmeters of low price are available for all power loader mixers up to and including the 10-S. For the larger mixers a meter of heavier construction can be had for either batch hopper or power loader equipments. Discharge locks are provided for both types.

The small size is shown below and the large on page 21 at the top.



Small batchmeter and discharge lock for mixers up to and including 10-S. (Batchmeter for larger mixers see page 21.)



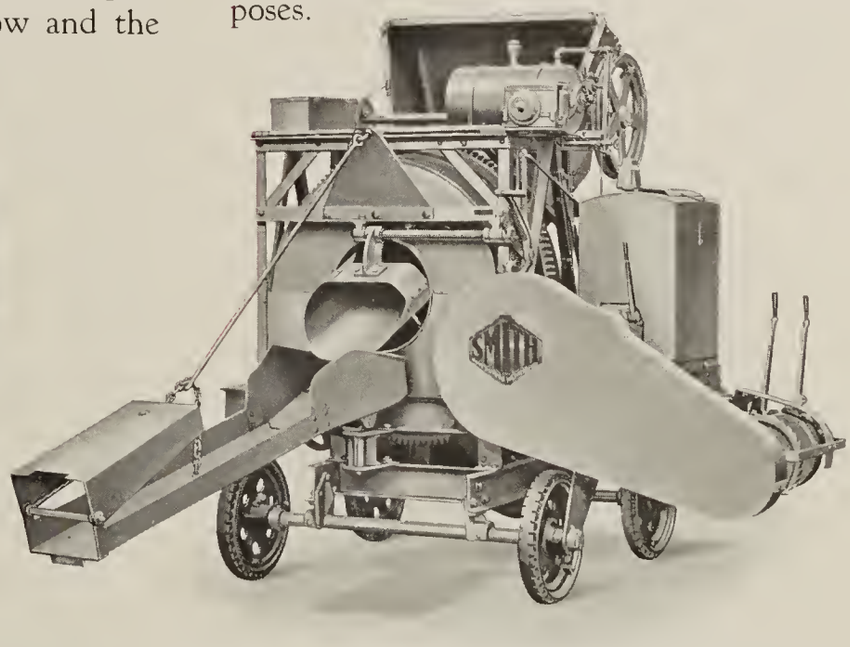
Extended operating levers for overhead operation — fast and convenient.

Discharge Extension

Cylindrical extensions on the discharge end of tilting mixers are useful in bringing the discharge to a desired point. The 112-S mixer on page 41 is equipped with one of these extensions.

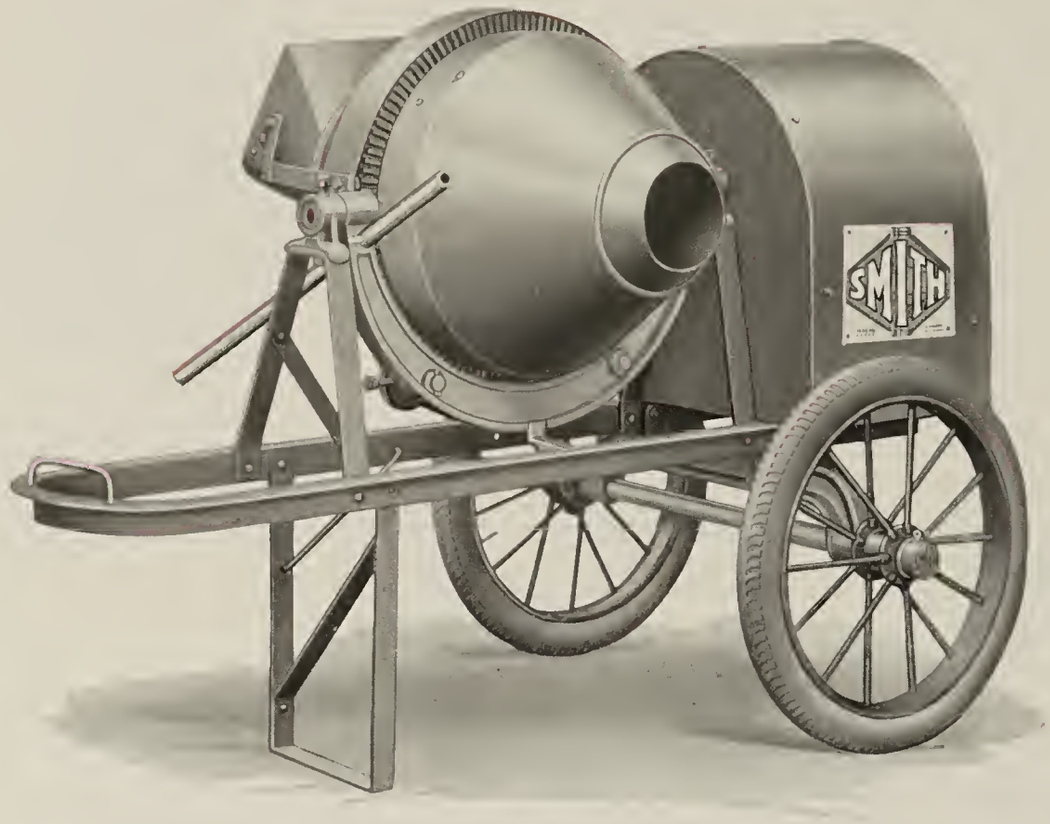
Overhead Control Levers

All of the control levers on mixers equipped with batch hoppers can be extended for overhead operation. This makes a convenient arrangement for central mixing plant purposes.



A small paver — Smith 7-S and 10-S Non-Tilters on cross-wise trucks with chute — winch at right for pulling mixer along the work or as material hoist.

The Mascot 2½-S Tilter



Smith Mascot (2½-S) weighs 785 pounds—easy high speed portability—discharge from either side—30″ x 3½″ pneumatic tires

The Smith Mascot or 2½-S Tilter is ideal for the small job and repair contractor who desires to place 25 to 40 cu. yds. of concrete per day.

The feed chute permits faster charging than is possible with small mixers charged directly thru the drum opening. And for discharge it is only necessary to tilt the drum a few degrees instead of thru a half circle.

One wheelbarrow takes the full contents of the drum; — no waiting for a second wheeler to take the other half barrowful.

Its output is as large as that of bigger mixers because the wheelbarrows are always loaded full.

Faster charging, faster mixing and faster discharging mean bigger output and profits for the contractor.

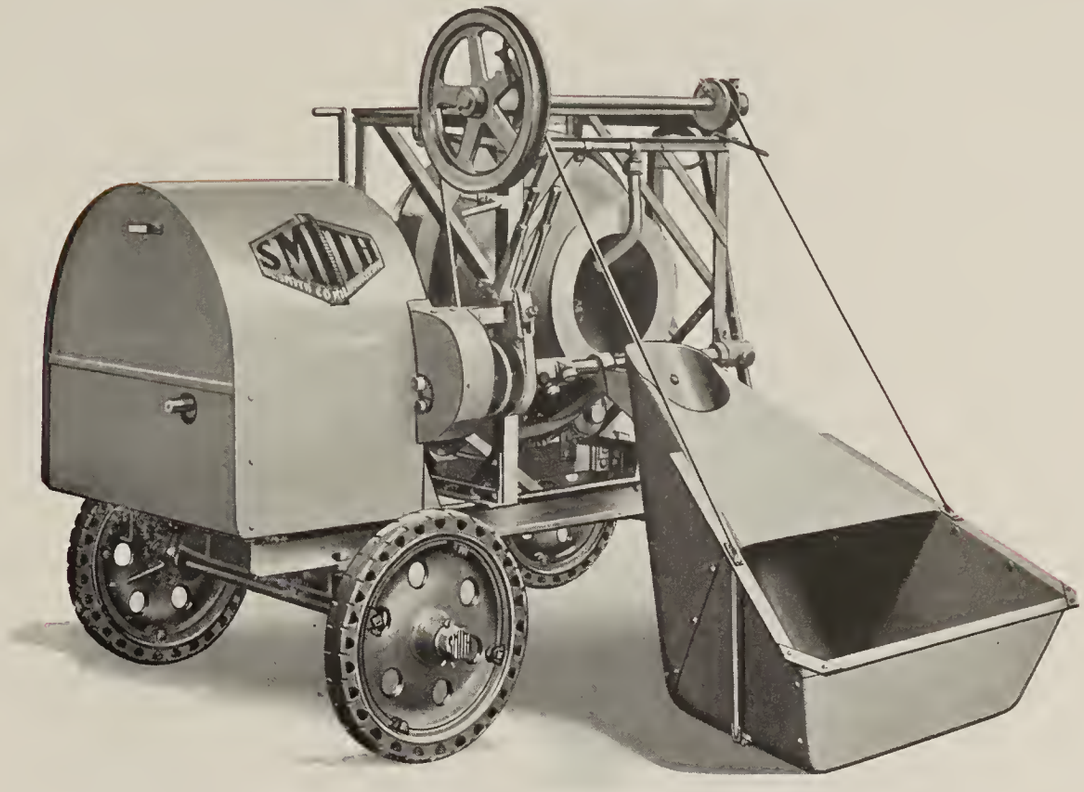
Fast charging with big feed chute demountable cushion tires.

REGULAR EQUIPMENT: Two wheel trailer truck with plain steel wheels or clincher wheels for 30″ x 3½″ tires; feed chute; 1½ H. P. Fuller & Johnson Engine with Wico magneto.

ADDITIONAL EQUIPMENT: Two cushion type demountable rubber tires.

Weight with feed chute and engine 785 lbs.
Detailed specifications on page 50.
Complete dimensions on page 59.

3½-S Half Bag Tilter



Smith 3½-S Half Bag Tilter — with four wheel cushion tired truck and power loader.

The second size in the Smith line, the 3½-S Tilter, is rated to produce 35 to 50 cu. yds. daily.

This is the smallest Smith Mixer equipped with power loader. The loader permits assembling a second batch with one already in the drum and insures a daily capacity one third greater than possible with feed chute equipment.

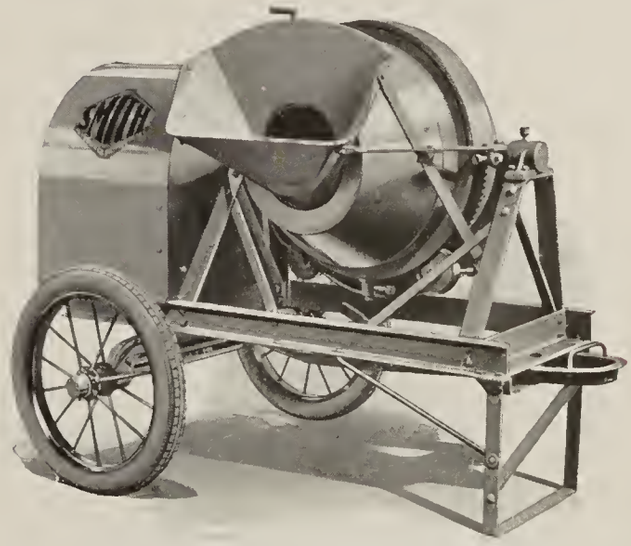
And the tilting of the drum thru only a small arc gives easier and faster discharge than with the single opening tilters which must be swung thru a half circle.

REGULAR EQUIPMENT: Two or four wheel truck with plain steel wheels or clincher wheels for 30″ x 3½″ tires on two wheel model only; feed chute; 2 H.P. Fuller & Johnson Engine with Wico Magneto.

ADDITIONAL EQUIPMENT: Two or four cushion type demountable rubber tires with disc wheels; power loader; 8 gallon non-automatic measuring water tank, charging platform.

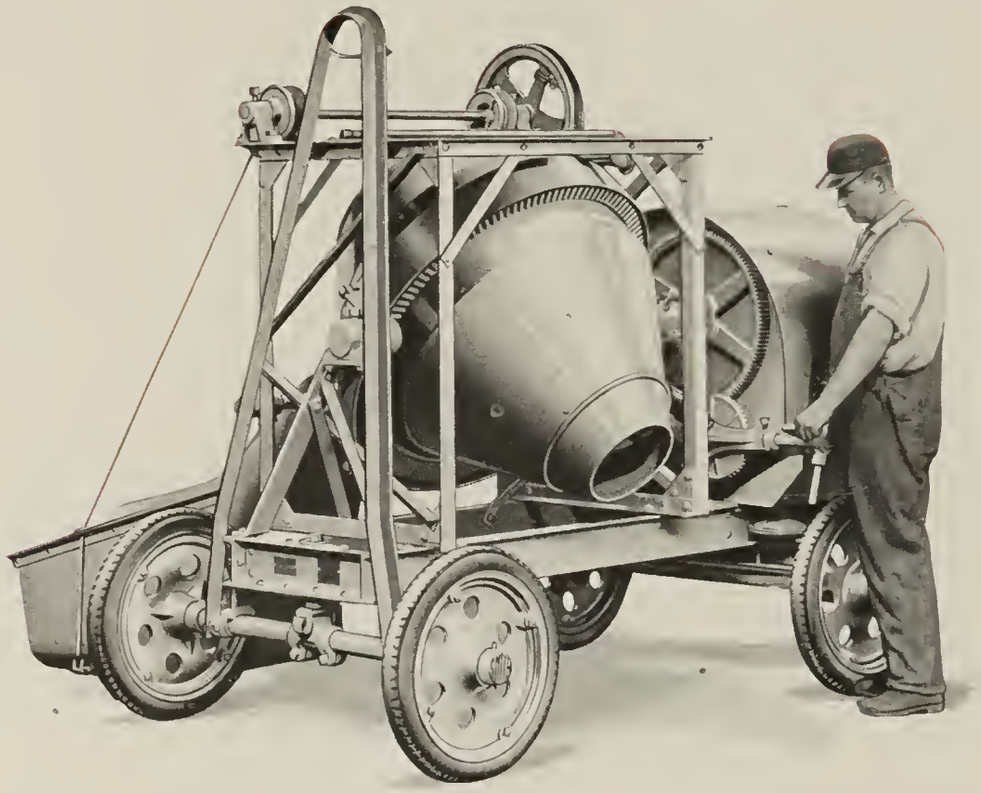
WEIGHTS: Two wheel trailer with feed chute and engine 1180 lbs; — four wheel type with feed chute and engine 1340 lbs; — four wheel type with power loader and engine 1770 lbs.

Detailed specifications on page 50.
Complete dimensions on page 59.



Smith 3½-S Tilter — trailer type with feed chute — also furnished with cushion tires.

5-S One Bag Tilter



Best for dry concrete — easy one hand tilting — with Power Loader and Cushion Tires.

This is a lighter more portable one bag mixer for the contractor whose work calls for the richer concrete of 1-2-4 proportions.

Architects and engineers are now specifying this proportion for driveways, and garage floors. And for bridges and culverts on highway work concrete of the same proportions is required.

Smith 5-S (One Bag) Tilter—with Feed Chute.

And the 5-S Tilter has the simple gear drives and band clutches which are identifying features of Smith Mixers. These coupled with sturdy Smith construction make it truly a "Dependable Smith".

REGULAR EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 3 H.P. Fuller & Johnson Engine with Wico Magneto.

ADDITIONAL EQUIPMENT: Four wheel cushion type demountable rubber tires with disc wheels; power loader; 8 gallon automatic water measuring tank; recording batchmeter; auxiliary water pump; charging platform.

WEIGHTS: Mixer with plain steel wheels, feed chute and engine 1960 lbs; — with plain steel wheels, power loader and engine 2500 lbs.

Detailed specifications on page 50.
Complete dimensions on page 60.

5-S One Bag Non-Tilter

Big chute for fast discharge — with Power Loader and Cushion Tires.

And for the contractor who prefers the non-tilting type of mixer there is the New Smith 5-S.

The drum follows the new Smith design; — large in diameter and narrow, with consequent faster mixing.

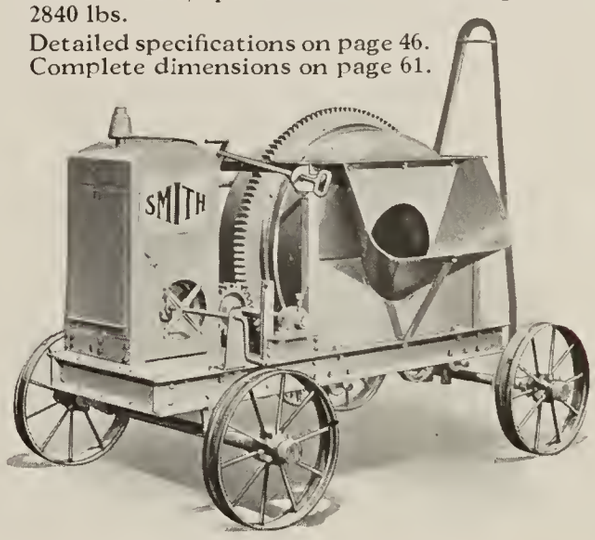
The big diameter permits bigger openings with a larger discharge chute and bigger throat on the skip or feed chute. It is built for the contractor who gets things done; — for the man who insists on a steady flow of material thru the mixer.

REGULAR EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 4 H.P. Le Roi engine; water pipe and valve.

ADDITIONAL EQUIPMENT: Four cushion type demountable rubber tires with disc wheels; power loader; 8 gallon automatic water measuring tank; recording batch-meter; auxiliary water pump; charging platform.

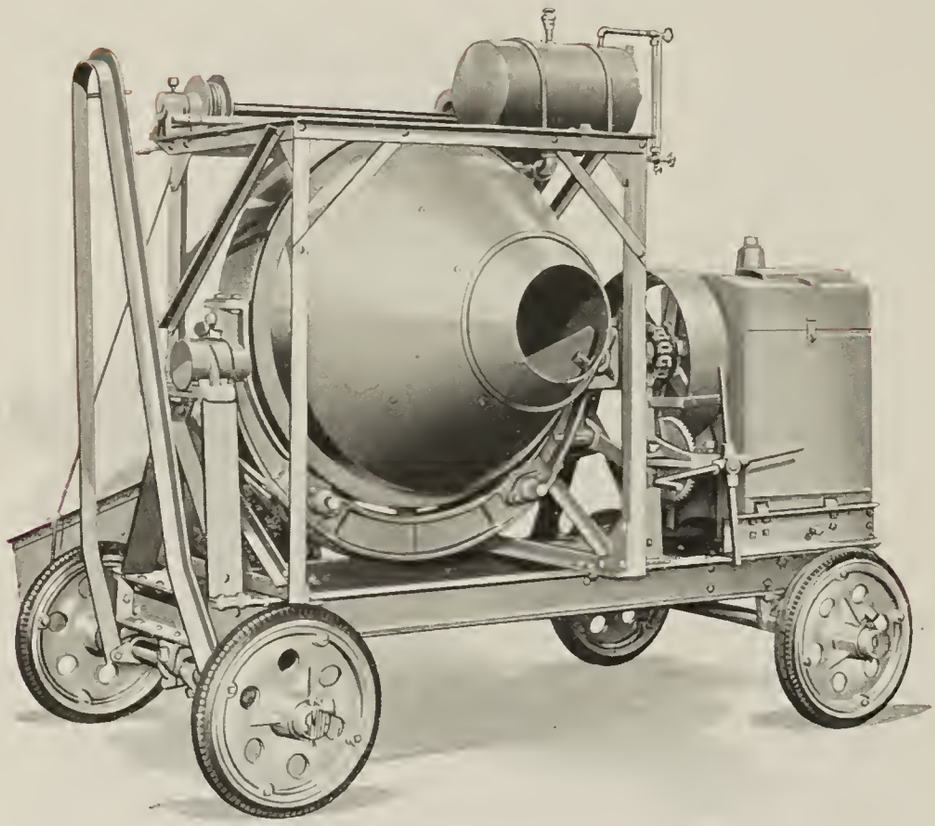
WEIGHTS: Mixer with plain steel wheels, feed chute and engine 2400 lbs. — with plain steel wheels, power loader and engine 2840 lbs.

Detailed specifications on page 46.
Complete dimensions on page 61.



5-S Non-Tilter with big feed chute — discharge control from both sides of mixer.

7-S One Bag Tilter



Sturdy Smith 7-S Tilter with power loader, on four wheel cushion tired truck.

The Smith 7-S Tilter is big enough to give a daily capacity of 70 to 120 cu. yds., making it acceptable for a wide range of work.

7-S Smith Tilter — centralized speedy control.

It is particularly useful because it so readily mixes and discharges the extremely dry concrete required by present specifications. The drum is easily tilted;—and out pours the driest batch; — one inch slump test and less.

And like all Smith Mixers the simple easily adjusted band friction clutch and brake are employed permitting easy repair in the field.

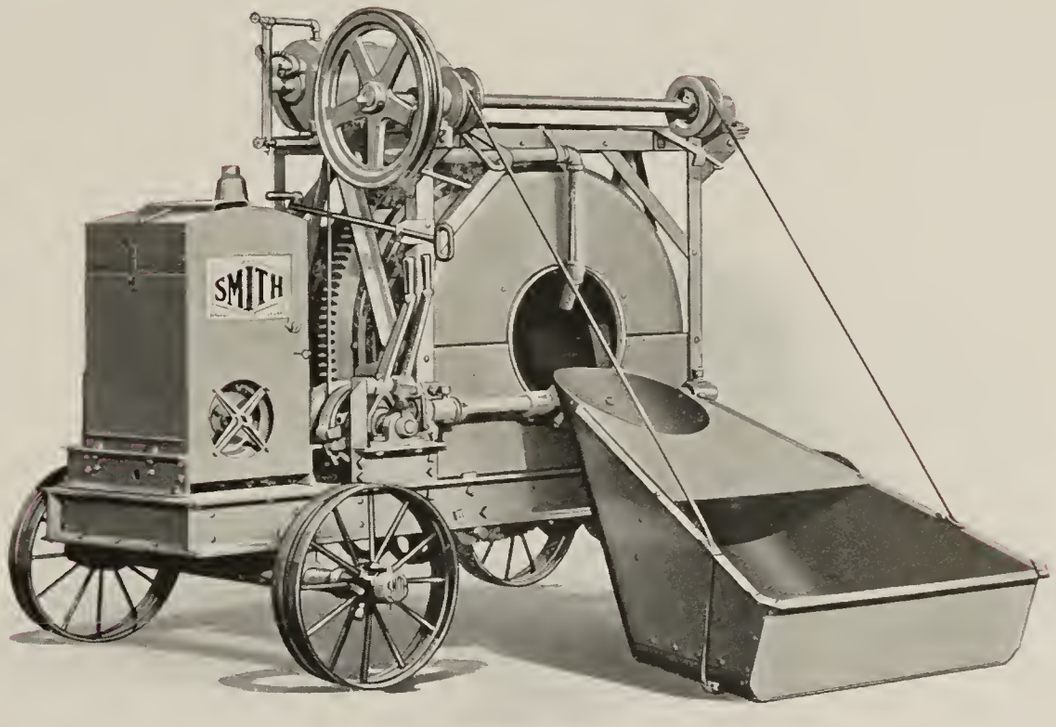
REGULAR EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 2 cylinder 8 H.P. Le Roi engine hopper cooled.

ADDITIONAL EQUIPMENT: Four cushion type demountable rubber tires with disc wheels; power loader; 12 gallon automatic water measuring tank; recording batchmeter; auxiliary water pump; charging platform.

WEIGHTS: Mixer with plain steel wheels, feed chute and engine 2540 lbs; — with plain steel wheels, power loader, water tank and engine 3390 lbs.

Detailed specifications on page 50.
Complete dimensions on page 60.

7-S One Bag Non-Tilter



And here is the Smith 7-S Non-Tilter — low wide skip for fast charging — the fastest 7-S built.

The Smith 7-S Non-tilter is the fastest one bag mixer built.

It has the new Smith drum, large in diameter and narrow. The drum is deep and the batch empties from the skip at the center; — the water and aggregate are brought together faster and the mixing is faster and more thorough.

And to pick up the batch and throw it down the chute are eight deep full width buckets; — out comes the batch in a hurry and no mistake. The discharge chute is as big as found on most half yard mixers.

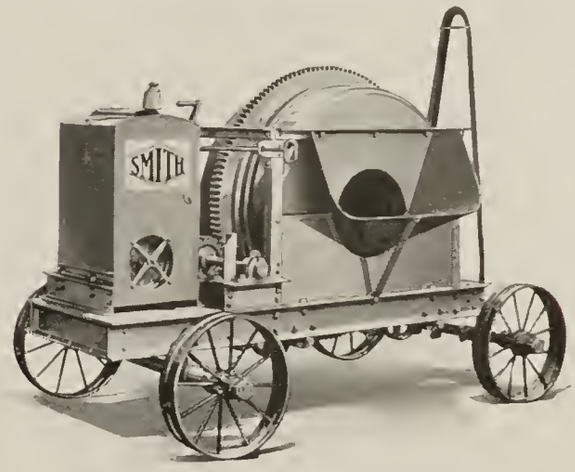
And the batch is always balanced at the center and the drum rolls smoothly on. There is no destructive pounding; — maintenence costs are lower and the Smith is Dependable.

REGULAR EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 2 cylinder 8 H.P. Le Roi engine hopper cooled.

ADDITIONAL EQUIPMENT: Four cushion type demountable rubber tires with disc wheels; power loader; 12 gallon automatic water measuring tank; recording batchmeter; auxiliary water pump; crosswise trucks with or without 8′ swivel chute; auxiliary hoist for material or for moving mixer; charging platform.

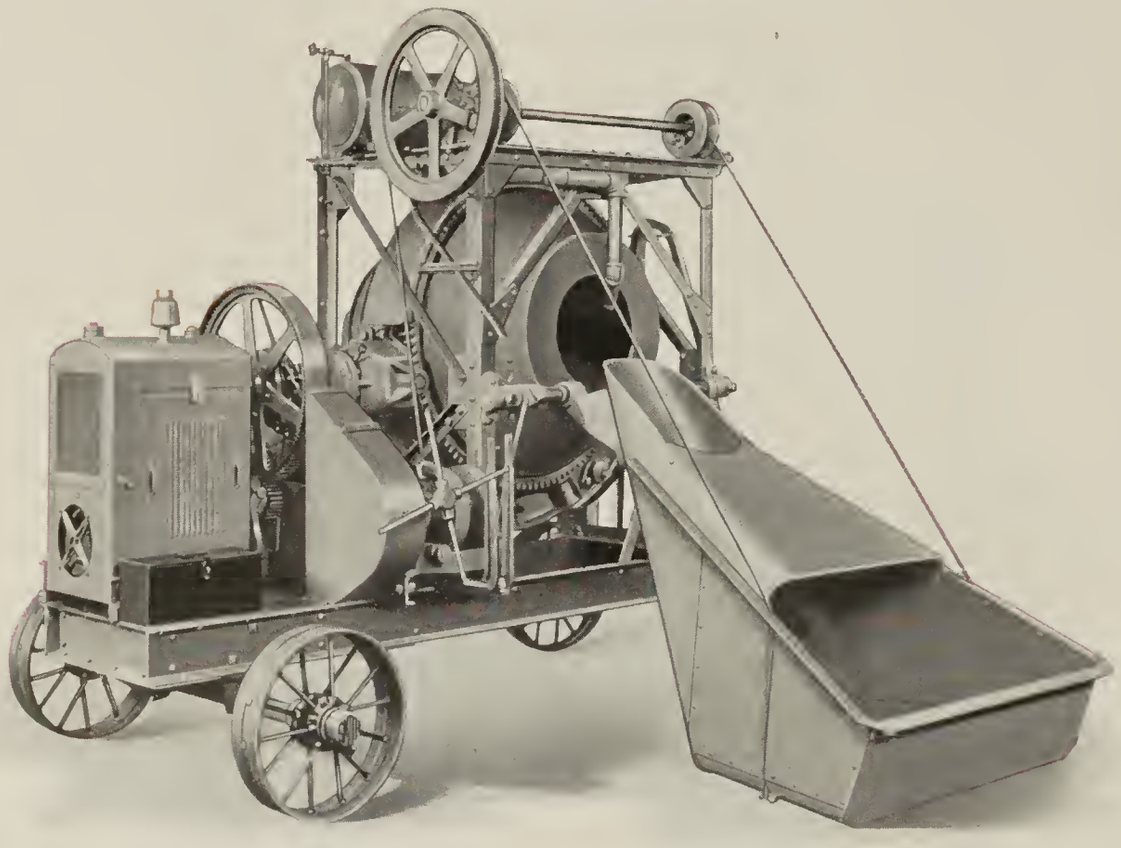
WEIGHTS: Mixer with plain steel wheels, feed chute and engine 2800 lbs; — with plain steel wheels, power loader, water tank and engine 3775 lbs.

Detailed specifications on page 46.
Complete dimensions on page 61.



7-S Non-tilter with feed chute — wide for fast wheelbarrow charging.

10-S Two Bag Tilter



Smith 10-S Tilter with Power Loader and Water Tank.

The 10-S Smith Tilter is designed for the contractor who requires a two bag mixer on a mix up to 1-2-5 proportions.

It is particularly the mixer for the bridge contractor who desires to place 100 to 150 cu. yds. daily. And concrete for bridge and culvert work is dry and best mixed and discharged by a tilting mixer.

The discharge point is high — and dry concrete pours out fast.

And the famous Smith End-to-Center action turns out a uniform product which has made Smith Tilters the standard for the world's largest concrete projects.

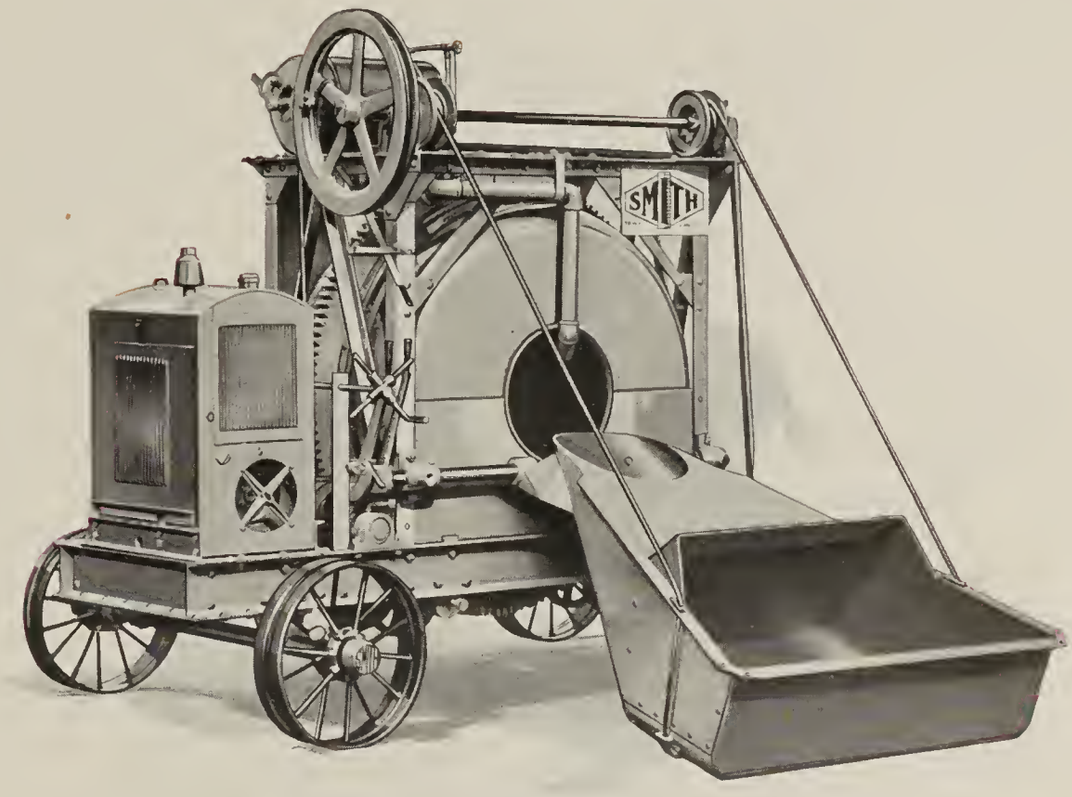
REGULAR EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 4 cylinder 10 H.P. Le Roi Engine radiator cooled.

ADDITIONAL EQUIPMENT: Four solid rubber tires with spoke wheels; power loader; batch hopper; 15 gallon automatic water measuring tank; auxiliary water pump; recording batchmeter.

WEIGHTS: Mixer with plain steel wheels, feed chute and engine 4590 lbs; — with plain steel wheels, power loader, water tank and engine 6390 lbs.

Detailed specifications on page 50.
Complete dimensions on page 60.

10-S Two Bag Non-Tilter



Smith 10-S Non-Tilter with Power Loader and Water Tank.

The 10-S is another of the new Smith non-tilters with the narrow and large diameter drum; — fast from loading skip to discharge spout.

It is popular with the contractor who specializes on bridges, culverts, reinforced concrete buildings, large floors, driveways and grain elevators.

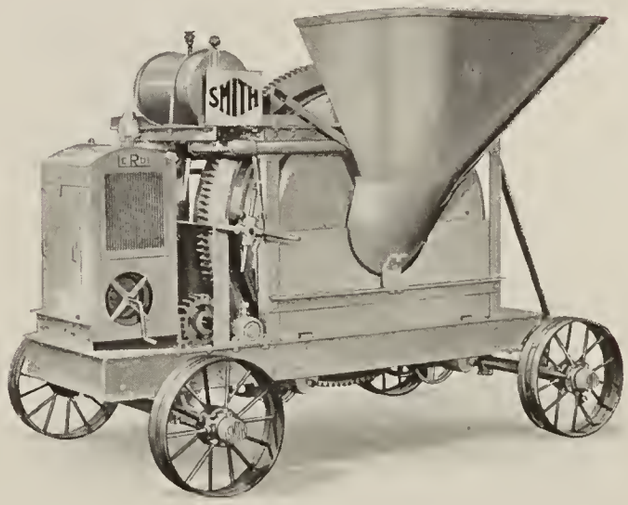
It can be mounted crosswise on special trucks to serve as a two bag paver. This equipment functions well on sidewalks, small alleys, floors and curb and gutter.

STANDARD EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 4 cyl. 10 H.P. Le Roi Engine radiator cooled.

ADDITIONAL EQUIPMENT: Four solid rubber tires with spoke wheels; power loader; batch hopper; 15 gallon automatic water measuring tank; auxiliary water-pump; recording batchmeter; crosswise trucks with or without 8′ swivel chute; auxiliary hoist for material or for pulling mixer along; charging platform.

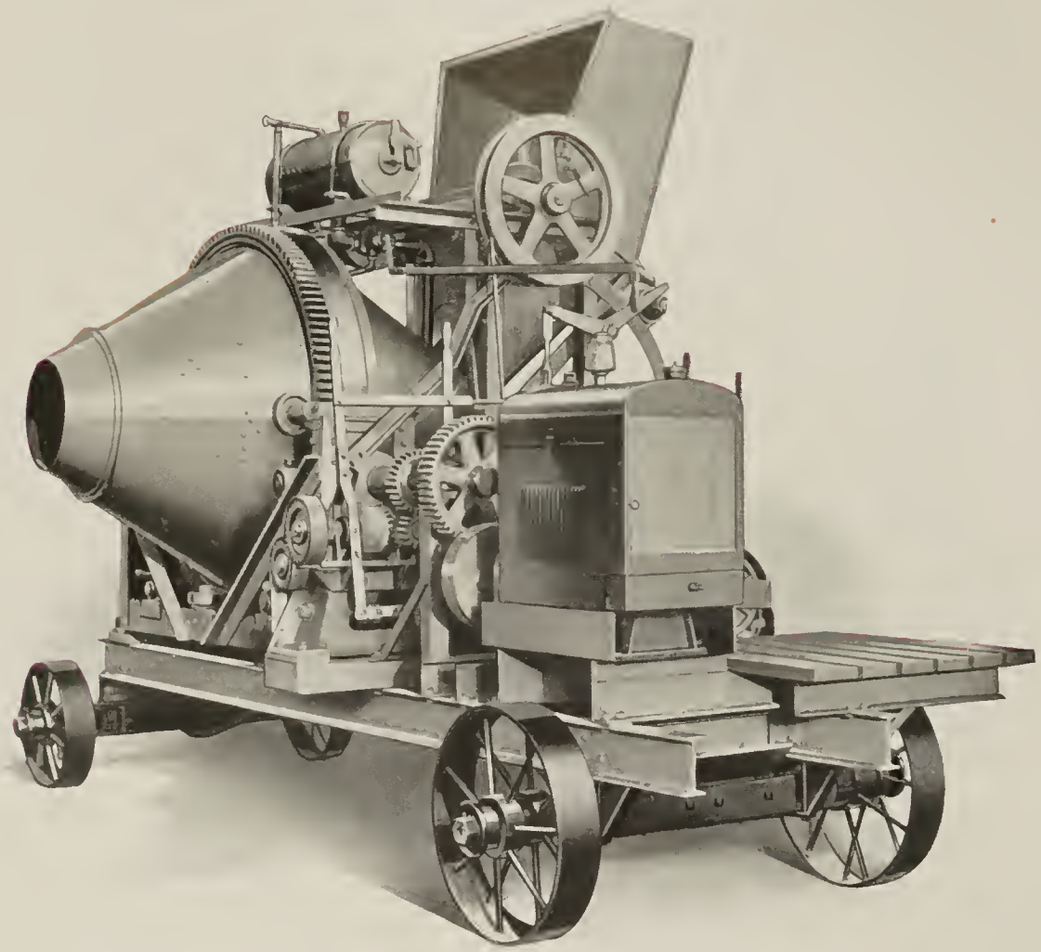
WEIGHTS: Mixer with plain steel wheels, feed chute and engine 4200 lbs; — with plain steel wheels, power loader, water tank and engine 5665 lbs.

Detailed specifications on page 46.
Complete dimensions on page 61.



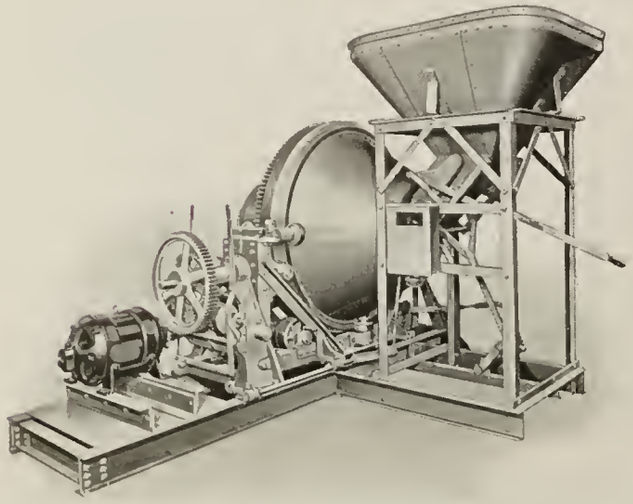
10-S Non-Tilter with Batch Hopper for overhead charging.

14-S Half Yard Tilter



Smith 14-S Tilting Mixer on trucks with Power Loader and 4 cylinder gasoline engine.

The Smith 14-S Tilter is designed to produce a daily capacity of 150 to 240 cu. yds.



And for tower jobs the 14-S Tilter with batch hopper is useful.

With the present tendency to increase the length of the mixing period, 14-S Mixers must in many cases supplant the 7-S if the desired daily outputs are to be maintained. It is an adaptable all purpose mixer.

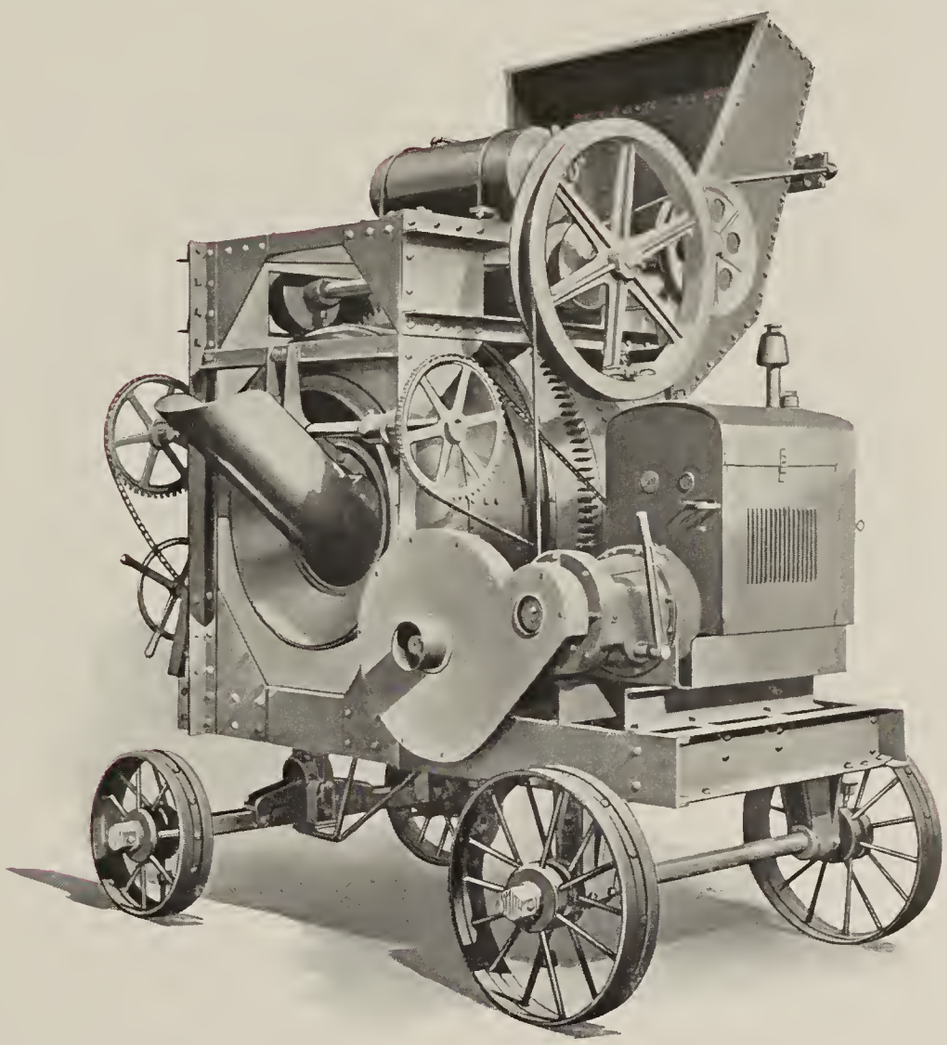
STANDARD EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 4 cylinder 15 H.P. Le Roi Engine.

ADDITIONAL EQUIPMENT: power loader; batch hopper; 22 gallon automatic water measuring tank; recording batchmeter; extensions for track loader; extended operating levers.

WEIGHTS: Mixer with plain steel wheels, feed chute and engine 7400 lbs; — with plain steel wheels, power loader, water tank and engine 10,345 lbs.

Detailed specifications on page 52.
Complete dimensions on page 62.

14-S Half Yard Non-Tilter



Smith 14-S Non-Tilting Mixer — on trucks with Power Loader and 4 cylinder gasoline engine.

The Smith 14-S Non-tilter is one of the most popular of the entire line of non-tilters. Its speed and dependability have caused many large contractors to adopt it as standard.

The drum follows the familiar Smith design of a narrow drum with large diameter. The ability to quickly mix and discharge dry concrete are important reasons for its popularity.

And the fewer parts used on Smith Mixers are reflected in the freedom from breakdowns and the lower maintenance costs. The band friction clutches are foolproof and easily adjusted.

The 14-S Non-Tilt is truly a Dependable Smith.

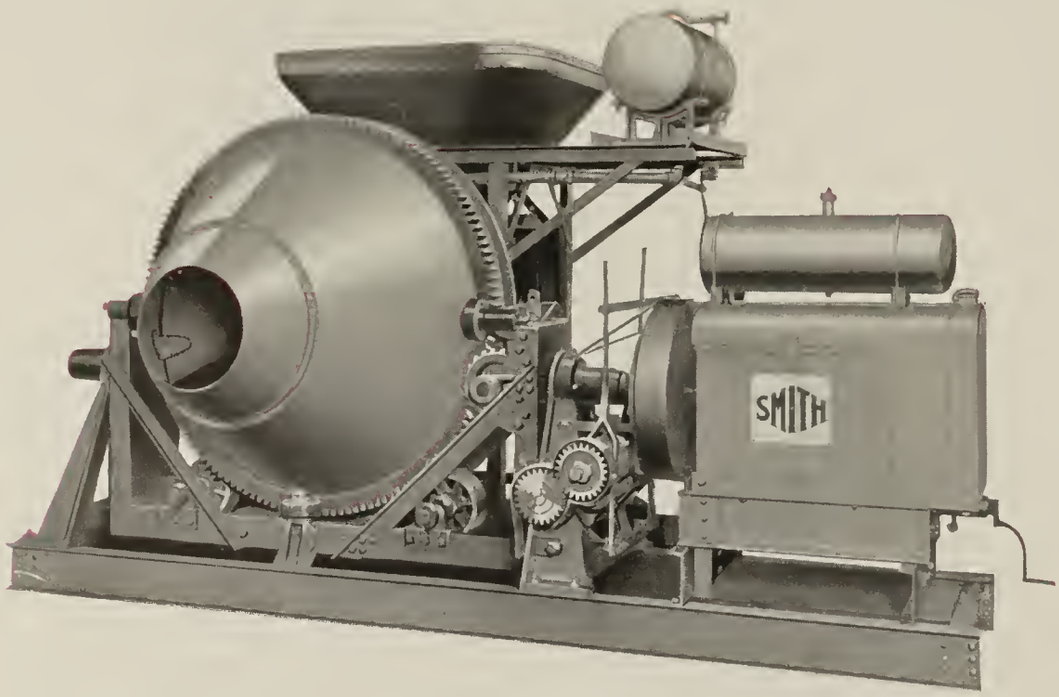
STANDARD EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 4 cylinder 15 H.P. Le Roi engine.

ADDITIONAL EQUIPMENT: Four solid rubber tires with spoke wheels; power loader; batch hopper; 22 gallon automatic water measuring tank; recording batchmeter; extended operating levers.

WEIGHTS: Mixer with plain steel wheels; feed chute and engine 7200 lbs; — with plain steel wheels, power loader, water tank and engine 9005 lbs.

Detailed specifications on page 48.
Complete dimensions on page 63.

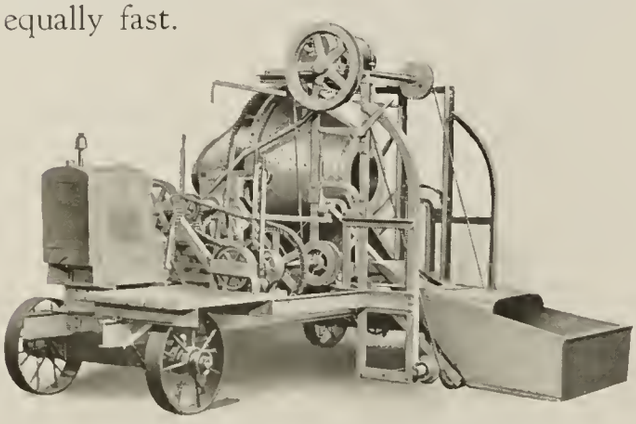
21-S Three Quarter Yard Tilter



Smith 21-S Tilting Mixer — on skids with Batch Hopper, with 4 cylinder gasoline engine.

Where forms can be erected far enough in advance the 50 percent added capacity of the 21-S over the 14-S means speedier production and bigger profits for the contractor.

The additional investment in mixer is made but once while the bigger capacity is available on every job. There is little difference in ease of portability and the operation is equally fast.



21-S Tilter with track loader — extensions can be had for special jobs. See page 22.

The power operated tilt and pour discharge is under easy lever control. And the double cone drum means fast time per batch and a bigger daily output. And Smith Tilters thrive on dry concrete.

And the famous Smith End-to Center action turns out a uniform product which has made Smith Tilters the standard for the world's largest concrete projects.

STANDARD EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 4 cylinder 35 H.P. Waukesha motor.

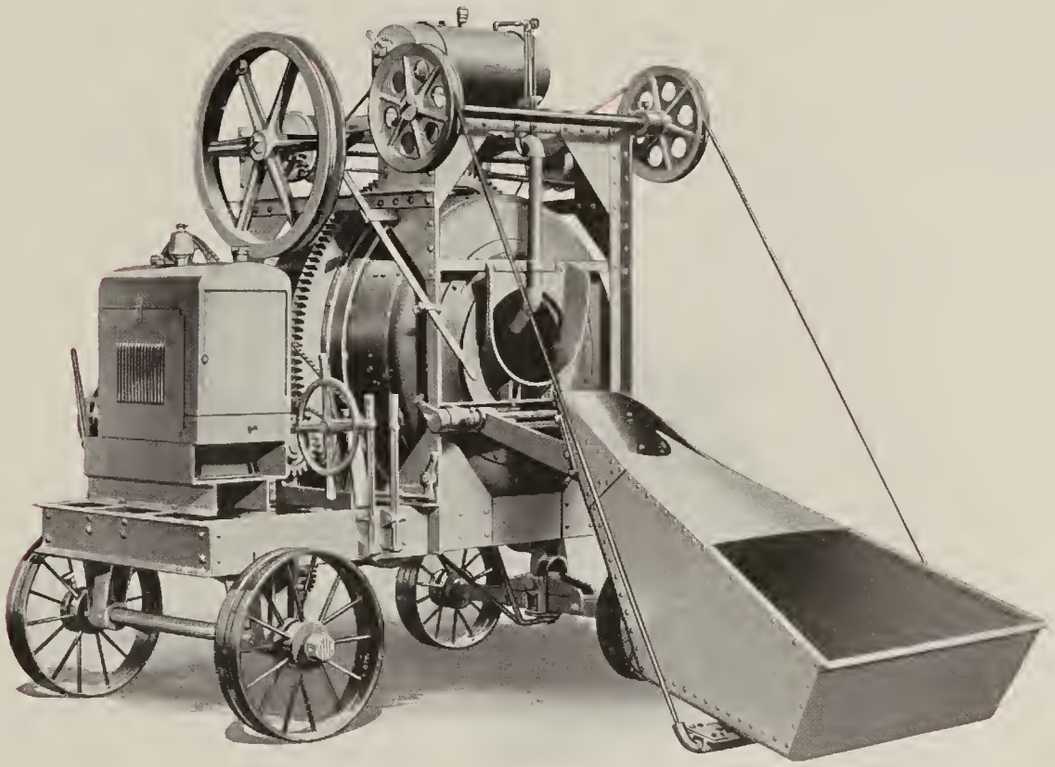
ADDITIONAL EQUIPMENT: Power loader; batch hopper; 32 gallon water measuring tank; recording batchmeter; electric motor; steam engine and boiler; extension for track loader; extended operating levers; tight and loose pulley.

WEIGHTS: Mixer on steel wheels, power loader, tank and engine 12,965 lbs.

Mixer on skids, batch hopper, tank and engine 9500 lbs.

Detailed specifications on page 52.
Complete dimensions on page 62.

21-S Three Quarter Yard Non-Tilter



Smith 21-S Non-Tilting Mixer — on trucks with Power Loader.

The Smith 21-S Non-Tilter is faster than other mixers of this type because of the full width bucket construction.

The full width buckets are deep too, because of the big diameter of the drum. These big buckets mean more concrete poured on the chute in less time — the concrete can't fall back into the drum — the chute catches it all and out it comes.

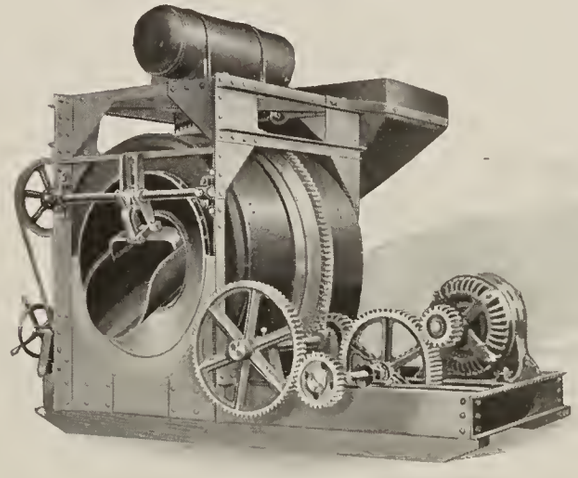
Speed to burn — and bigger outputs.

STANDARD EQUIPMENT: Four wheel trucks with plain steel wheels; feed chute; 35 H.P. 4 cylinder Waukesha motor.

ADDITIONAL EQUIPMENT: Power loader; batch hopper; 32 gallon automatic water measuring tank; recording batchmeter; electric motor; steam engine and boiler; pulley drive; extended operating levers.

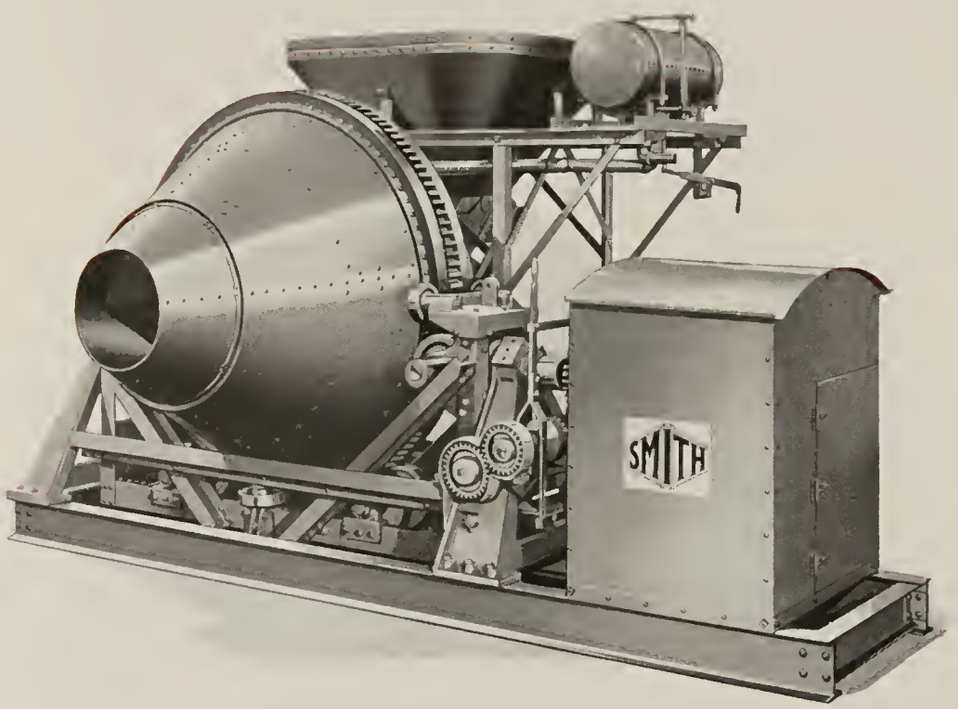
WEIGHTS: Mixer on skids, feed chute and engine 6400 lbs; — with plain steel wheels, power loader, water tank and engine 9980 lbs.

Detailed specifications on page 48.
Complete dimensions on page 63.



Smith 21-S Non-Tilter with batch hopper and electric motor.

28-S One Yard Tilter



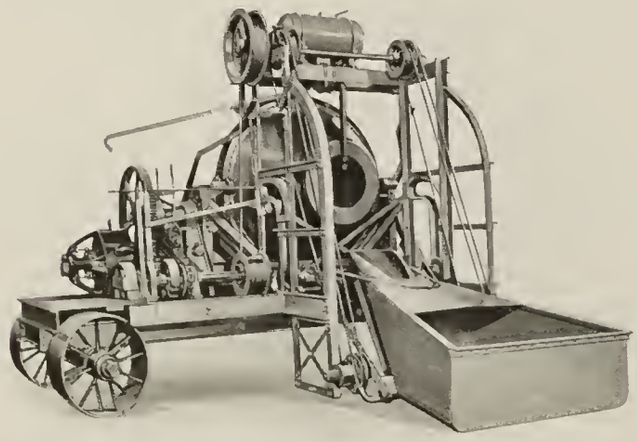
Smith 28-S (One-Yard) Tilting Mixer — on skids with Batch Hopper, Water Tank and electric motor drive.

The Smith 28-S Tilter has the capacity required for the larger bridges, reinforced concrete buildings, piers, dry docks, grain elevators, dams, reservoirs, retaining walls etc., where large volumes are required or unusually fast placing of concrete is necessary.

The "King" of One Yard Mixers

And no one yard mixer has been so unanimously selected as the standard. The largest contractors have found that their concrete plant worries are at an end with 28-S Smith Tilters. Used on the biggest jobs of yesterday and the biggest jobs of today; — the Smith policy of constant improvement insures for it a high place in the future.

When operated in pairs or singly the control levers can be extended for centralized overhead operation.



Smith 28-S Tilter with track loader and electric motor drive. Loader extensions can be had for special jobs. See Page 22.

STANDARD EQUIPMENT: Mixer on skids, feed chute; 4 cylinder 35 H.P. Waukesha gasoline engine.

ADDITIONAL EQUIPMENT: Power loader, batch hopper; 42 gallon water measuring tank; recording batchmeter; electric motor; steam engine and boiler; extension track loader; tight and loose pulley; extended operating levers.

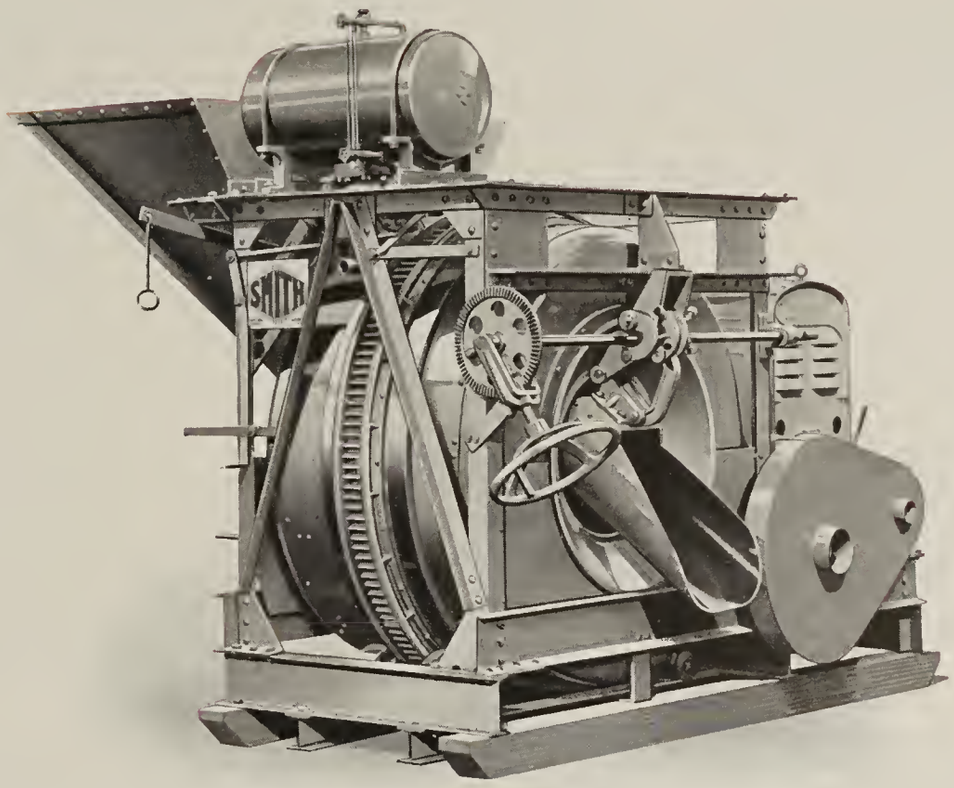
WEIGHTS: Mixer on trucks; power loader, water tank and engine 16,935 lbs.

Mixer on skids, batch hopper, water tank and engine 12,300 lbs.

Detailed specifications on page 52.

Complete dimensions on page 62.

28-S One Yard Non-Tilter



Smith 28-S Non-Tilter with the new Smith drum — large in diameter and narrow — fast and with lowest overall height for central plants.

The Smith 28-S Non-Tilt like its mate the 28-S Tilter is designed for use on big jobs of large volume or where fast placing is required.

It has been newly redesigned to make it the fastest and most compact 28-S Non-Tilter built.

Fast — Big Diameter and Narrow Drum

The drum is bigger in diameter and narrow. The drum is deeper and the batch from the hopper lands squarely in the center; the water and aggregate mix faster and more thoroughly in less time.

And this deep drum means bigger buckets, pouring more concrete on the chute in less time. Out it comes in a hurry; and faster mix and discharge mean more concrete and bigger profits for the contractor.

And this 28-S Smith is two feet lower in overall height than many other non-tilters of this size and requires less head room in Central Mixing Plants.

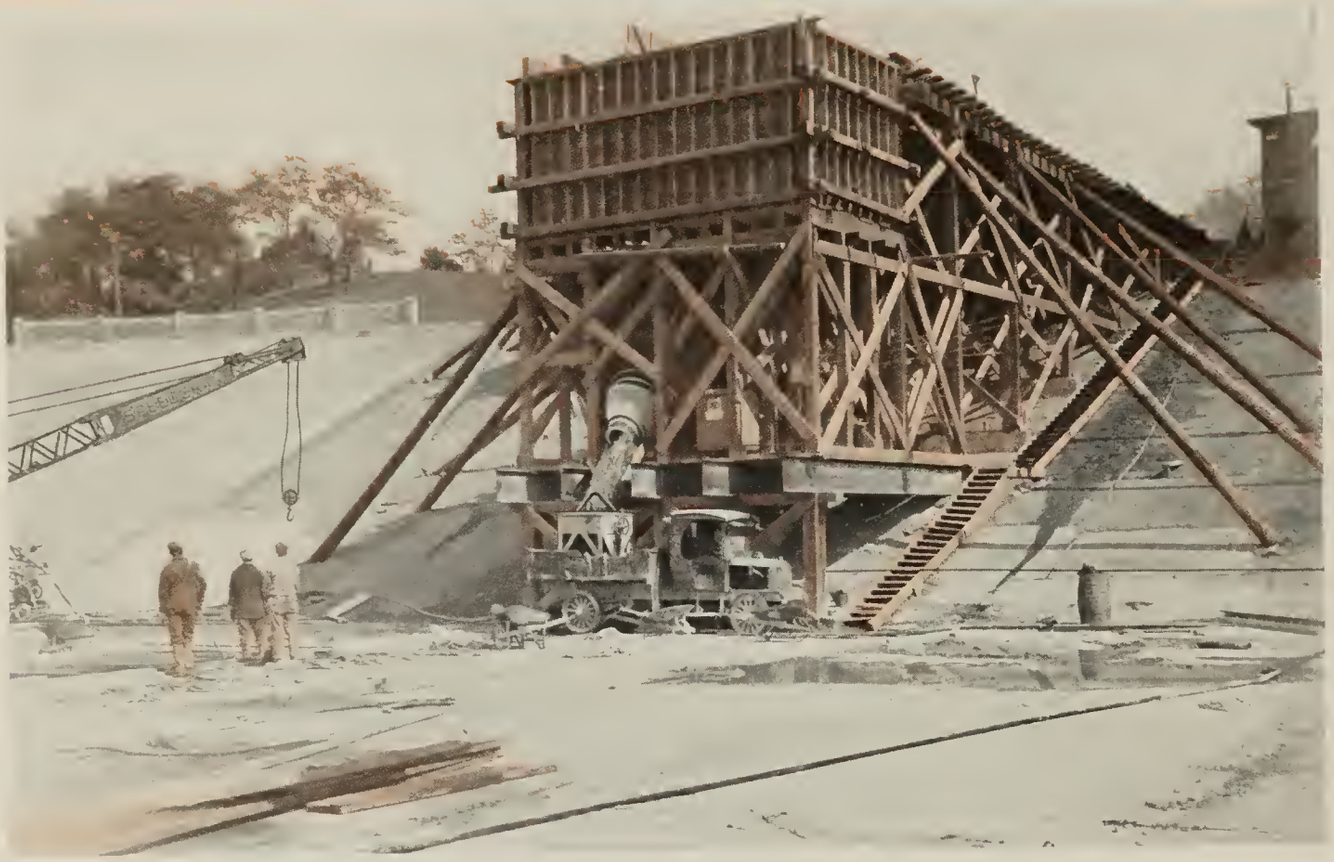
STANDARD EQUIPMENT: Mixer on wood skids; feed chute; 4 cylinder 35 H.P. Waukesha motor.

ADDITIONAL EQUIPMENT: Batch hopper; 42 gallon automatic water measuring tank; recording batchmeter; extended operating levers; steam engine and boiler; pulley drive; electric motor.

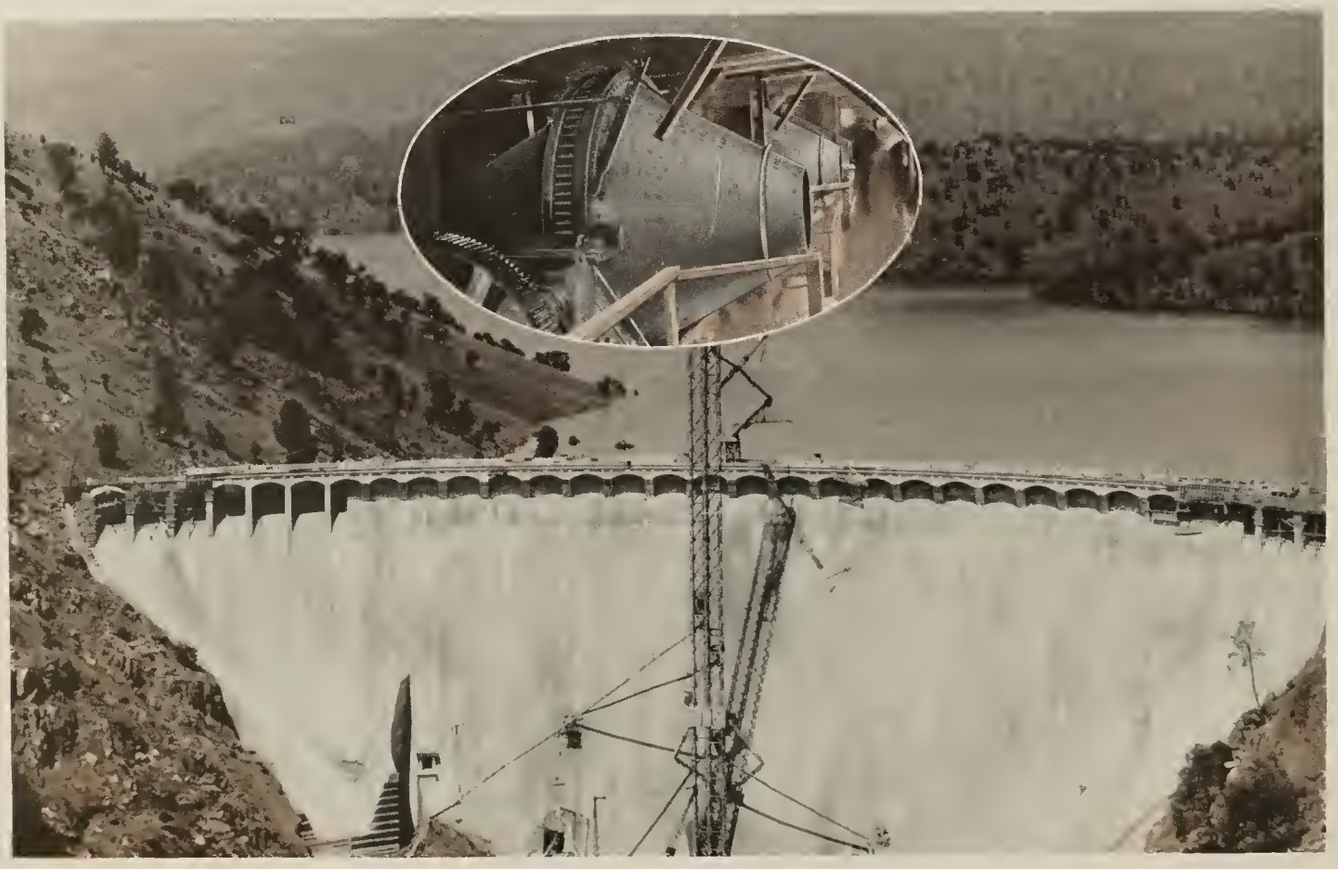
WEIGHTS: Mixer on skids, feed chute and gasoline engine 7850 lbs.

Mixer on skids, batch hopper, water tank and gasoline engine 9150 lbs.

Detailed specifications on page 48.
Complete dimensions on page 63.

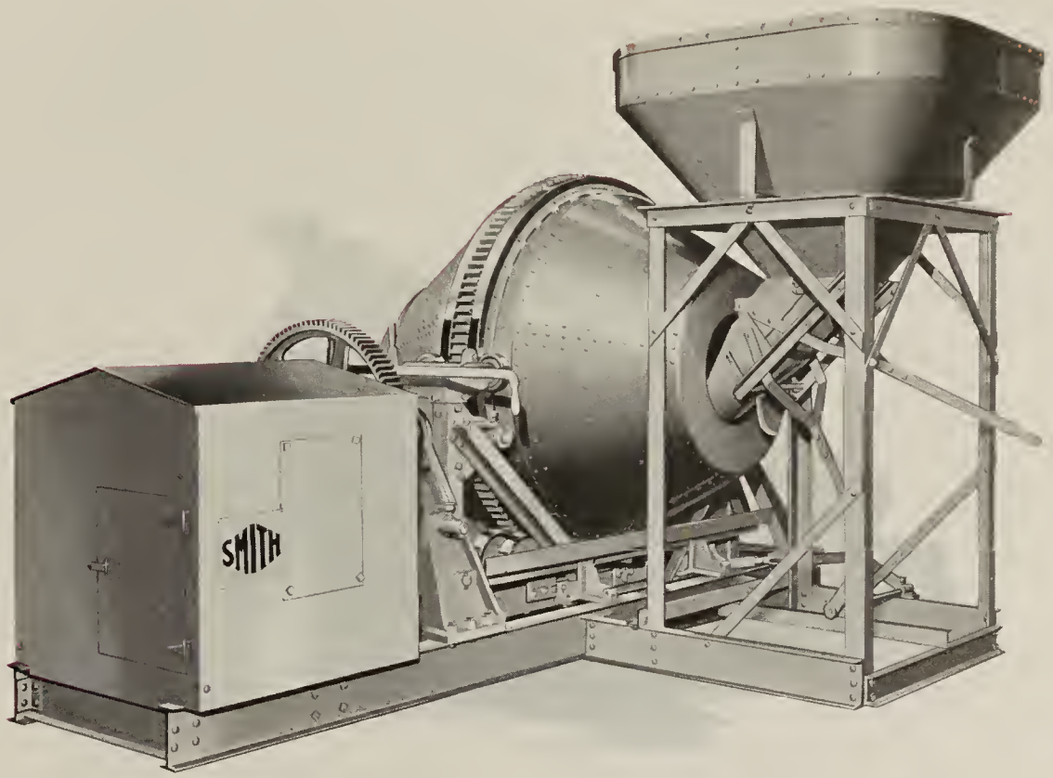


Smith 21-S Tilter on Highland Reservoir Job — closely controlled concrete — A. V. Purnell, Contractor, Pittsburg, Pa.



Exchequer Dam, Merced Cal. — Bent Bros. Contractors — three 56-S Tilters used and moved without overhauling to the Shaver Lake Dam, Southern Cal. Edison Co., and then to the Pardee Dam, Atkinson Const. Co.

40-S Yard and a Half Tilter



Smith 40-S Tilter with Gated Batch Hopper and electric motor drive.

And when the desired output of concrete is too large for the 28-S size, the 40-S ideally meets requirements.

It is in the big mixer class, with the two and four yard sizes, for use on bulky concrete jobs such as bridges, piers, sewage disposal plants, dry docks, grain elevators, dams, etc. Its large capacity also makes it desirable for use in Commercial Concrete Plants. In the latter use the speedy mix and discharge are of particular importance with large capacity trucks waiting to be loaded.

Concrete to Meet Specifications

The uniform product of the famous Smith End-to-Center action has caused Smith Mixers to be selected to mix the concrete for the most accurately designed structures.

The converging blades and the sloping double cones thoroughly work and flow the batch, kneading it, folding it and compacting it to produce concrete with every particle coated with rich cement mortar.

The Ambursen Dam Company, the Dupont Engineering Co. the Frazier-Davis Construction Company, Thompson-Starrett Company and Smith Brothers of Houston are a few well known users of this size.

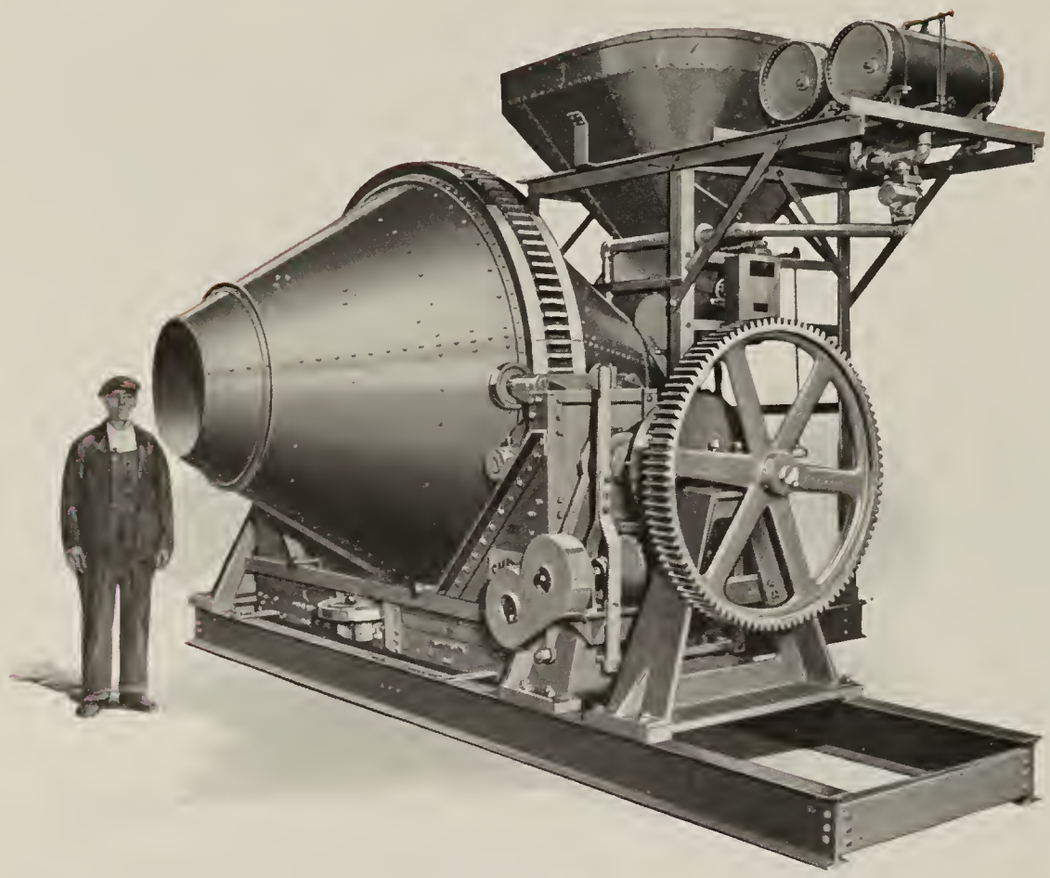
STANDARD EQUIPMENT: Mixer on steel skids; feed chute; 4 cylinder 47 H.P. Waukesha motor.

ADDITIONAL EQUIPMENT: Batch hopper; two 32 gallon automatic water measuring tanks; recording batchmeter; extended operating levers; discharge extension; left or right hand drive; electric motor; steam engine and boiler.

WEIGHTS: Mixer on skids with batch hopper, water tank and engine 13,925 lbs.

Detailed specifications on page 54.
Complete dimensions on page 62.

56-S Two Yard Tilter



Smith 56-S (Two Yard) Tilting Mixer — on skids, with batch hopper.

The World's Largest Mixers 56-S and 112-S Tilters

As builders of both tilting and non-tilting types it is significant that Smith Engineers have found it inadvisable to consider the design of either a 56-S or 112-S of the non-tilting type to compete with the inherent superiorities of the tilting type.

Inherent Superiority of Tilters

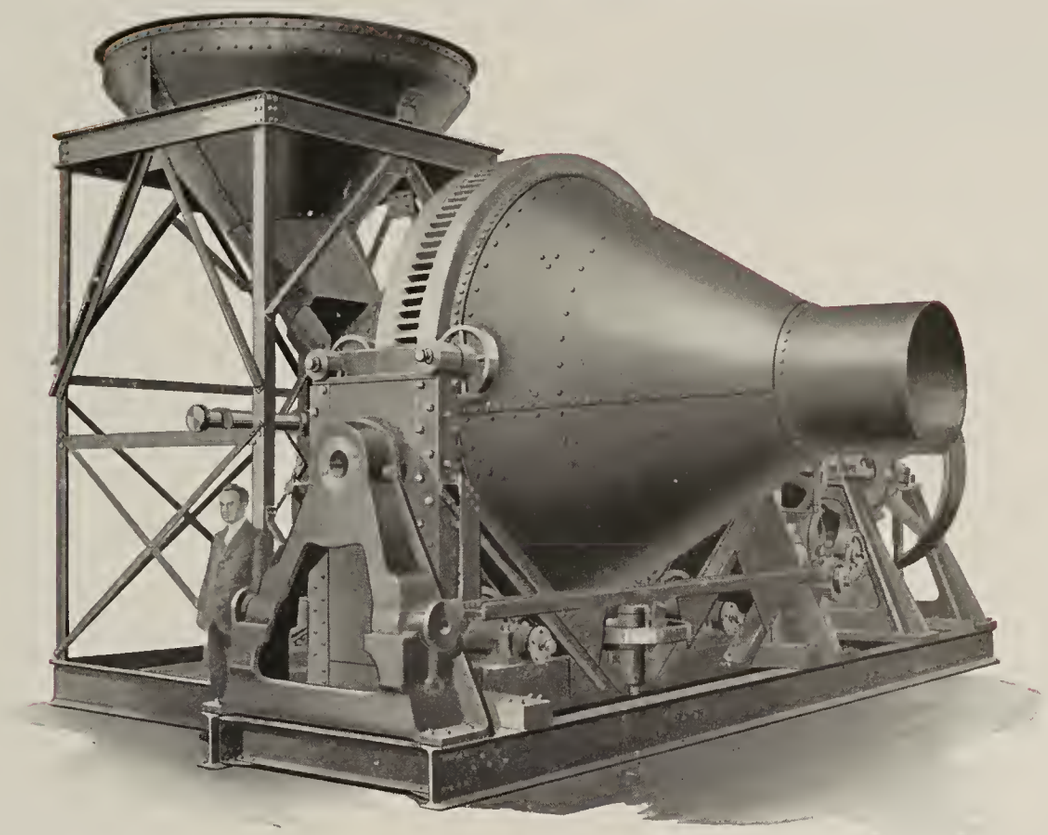
The unusual shape of the double cone tilting drum and the converging blades together constitute a thoroughness of mixing action against which the non-tilting type has only the action of the blades to offer. And the discharge of a two or four yard Smith Tilter is equally as fast as for the smaller sizes; a condition not true of the non-tilting type.

On heavy concrete structures such as dams, large savings in aggregate can be effected by passing 8 to 12 inch stones thru the mixer. Smith Tilters readily handle such material with no damage to the mixer which is entirely impossible in the non-tilting type.

The experience of several large users who have changed to Smith Tilters tangibly illustrates this outstanding superiority.

And Smith Tilters in the 56-S and 112-S sizes are typically Smith in the low cost of maintenance and absolute dependability. Only recently two 56-S Smiths poured a large part of 400,000 cubic yards and were transferred to another large project and then to a third without overhauling.

112-S Four Yard Tilter



The world's largest mixer — Smith 112-S (four yard) Tilting Mixer with Discharge Extension.

Big Boys on Big Projects

The largest single installation of these giant mixers was on the Wilson Dam at Muscle Shoals. Here the U. S. Engineers used two 112-S and six 56-S Smiths with two 56-S mixers of the non-tilting type of another make, failing badly. Stone and Webster and the Arundel Corporation used six 56-S Smiths on the great Conowingo Dam. The Aluminum Company of America are operating two 112-S mixers in Canada and another in Tennessee, as well as five of the 56-S size. The Martin and Jordan Dams of the Alabama Power Company have been poured with two 112-S Smiths.

And in the west, Bent Brothers, A. Guthrie, Inc. Atkinson, Kier Brothers and Spicer and the Utah Construction Company have depended on Smiths.

Other Prominent Users

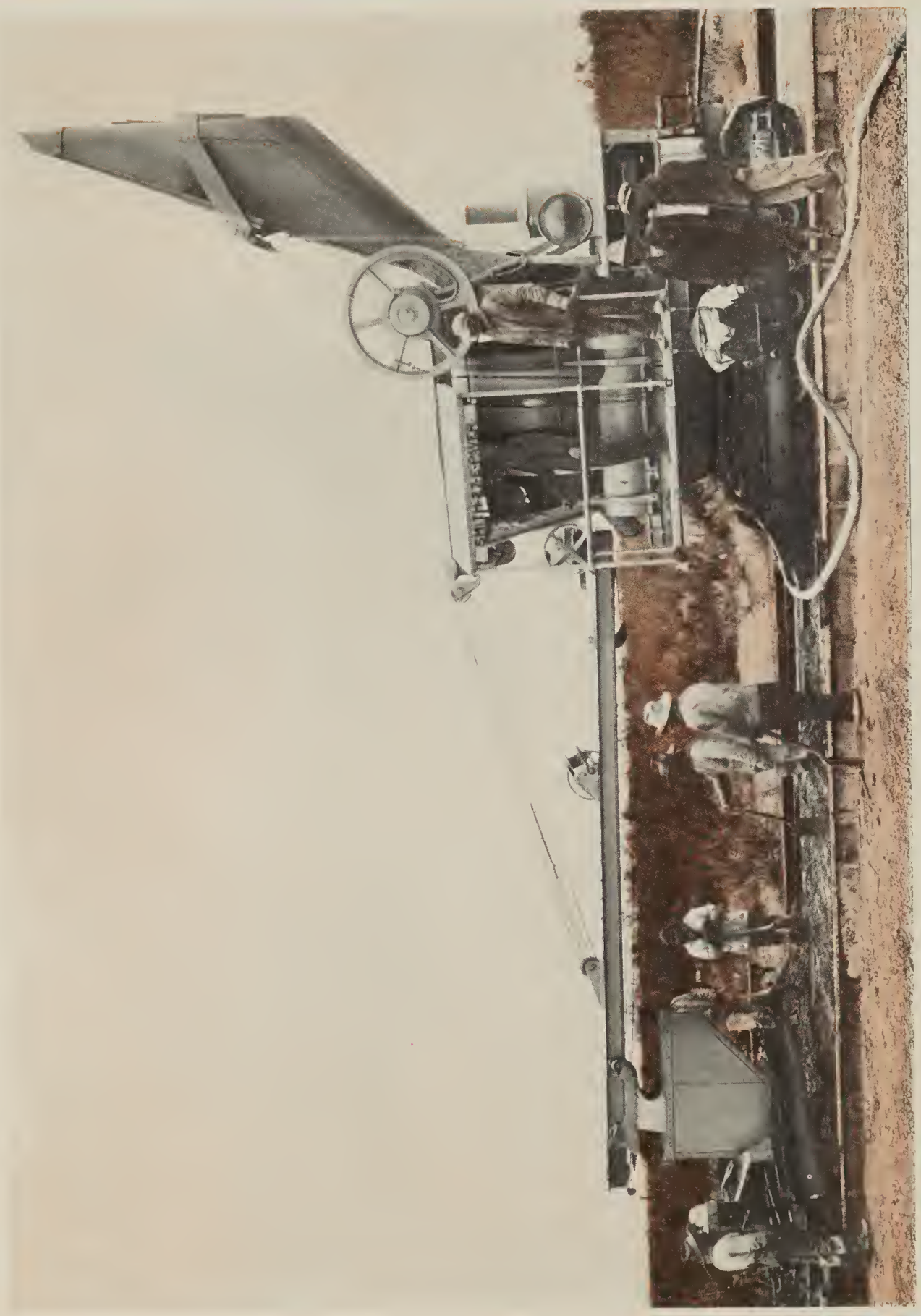
General Construction Co. 2-56-S
Louisville Hydro-Electric Co. 2-28-S 2-56-S
Wateree Power Company 3-56-S
Western Carolina Power Co. 2-56-S
Sloss Sheffield Steel & Iron Co. 1-28-S 1-56-S
U. G. I. Contracting Company 2-56-S
Sanderson & Porter 2-56-S

STANDARD EQUIPMENT: (56-S and 112-S) Mixers on skids, feed chute, no power, standard pulley.

ADDITIONAL EQUIPMENT: Batch hoppers, discharge extensions; electric motors; automatic water measuring tanks; recording batchmeters; extended operating levers.

WEIGHTS: 56-S with batch hopper and no power 21,670 lbs.

112-S with batch hopper and no power 48150 lbs.

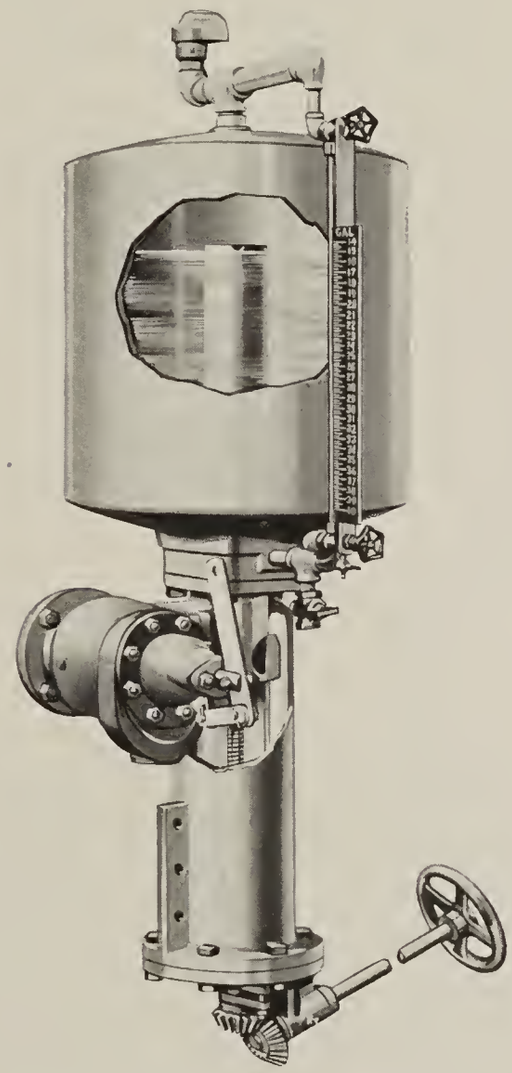


J. B. Zachry at Laredo, Texas paving with 27-E Smith Model 1928 — skip up and loaded bucket at the end — hugs the ground — no tipping

A New and Greater 27-E Smith Paver

In the new 27-E Smith Paver, all of the basic features responsible for Smith's 28 year old reputation for Speed and Dependability have been retained, with additional important features which anticipate future demands. The New Smith design is a real advance in paver construction.

Such characteristically Smith features as the famous "end-to-center" mixing action — the center drive and support, possible because the batch is always balanced — the fast discharge from the big buckets extending the full width of the drum — the low operating height — band friction clutches — closely grouped drives with the fewest possible parts — all these again play their part in the advanced Smith.



The New Smith Water Tank.
The central pipe is raised or lowered for more or less water — accurate to the ounce.

And the following new features set the standard for coming seasons:

1. A water measuring tank built on principles employed in the precise measurement of liquids for sale — unaffected by slopes, and accurate to the ounce to satisfy the most exacting requirements of the water cement ratio and highway specifications.

2. A boom swing easily and speedily operated by the thumb and one finger, eliminates any need for a power swing device.

3. Anti-friction roller and ball bearings in drum rollers, main drive shafts and in bucket rollers — the best make and type of bearing selected by Smith engineers to meet the conditions of each installation.

4. Large grease pockets, in housings, carrying anti-friction bearings, provide lubrication for long periods.

5. An exceptionally low center of gravity — a paver so designed that it is compact and built close to the ground, with a balance heretofore unknown; impossible to tip under any reasonable operating conditions.

6. A six cylinder, 57 horsepower Waukesha Motor as standard equipment — power twenty per cent greater than ever used before — power to give profitable faster operation.

7. 6000 pounds heavier than the previous model 27-E Smith; total weight 33,500 pounds, equal to other makes, but huskier and heavier when its compactness and use of fewer parts is considered.

A Paver with a Tower for Special Jobs

Every now and then there is a job which is strung out over a considerable distance. A new Smith development — a paver with a tower — is just the piece of special equipment to quickly and profitably handle such work. And typical of such projects are heavy sewer work, sea walls, retaining walls, docks, piers and drainage work.

Standard Paver Employed

The unit consists of a standard Smith 27-E Paver with the boom and bucket distributor removed and a tower, elevating bucket, and receiving hopper supported directly on the paver. In some cases a supporting truck for the tower is provided. All of the advantages of tower and chuting equipment are had and also the very desirable added feature of portability. And only the Smith Paver frame is sturdy enough to support a heavy tower.

On the recent extension of the Galveston Sea Wall one of these equipments placed the concrete extremely profitably and much faster than considered possible. In Buffalo, a large municipal pier was completed one year ahead of schedule.

Smith 27-E Paver with special 40-foot tower — City of Buffalo Pier job — Monarch Engineering Co., contractors, Buffalo—Work completed one year ahead of schedule.

Commercial Concrete Plants

Smith Bros., Houston, Tex. commercial concrete with 2 - 40-S Smith Mixers.

At Decatur, Ill., Traver sells lots of concrete — one 28-S Smith Tilter.

Conditions sometimes make the use of a central mixing plant for road work the fastest and most economical method and larger mixing units are available for central plants than in standard pavers.

Smith Tilting Mixers are known wherever concrete is mixed for their ability to stand up day after day and deliver concrete without breakdown or delay. Their superior speed of charging, mixing and discharging has been recognized for twenty-eight years.

Smith Tilters are made in sizes that deliver from 2½ cubic feet to 4 cubic yards of mixed concrete per batch. Common sizes for paving use, however, are the 21-S, 28-S, 40-S and 56-S.

Ready-Mixed Concrete

Many central mixing plants for the sale of ready mixed concrete are using Smith Mixers. Steady, uninterrupted service dictates the use of Smith Tilting Mixers in such plants.

Complete specifications and information covering Smith Tilting Mixers in use in commercial plants will be furnished on request.

Specifications 5-S, 7-S, 10-S Smith Non-Tilting Mixers

Complying with A. G. C. Standards

For Standard and additional equipment see pages 27, 29 and 31; for Special Power Plants see "Power Units" on opposite page.

Frame and Trucks —	5-S	7-S	10-S
Front wheels, size (steel)	24″D.	24″D.	24″D.
Rear wheels, size (steel)	5″F.	5″F.	6″F.
Rubber cushion tires	24″x 3½″	24″x 3½″	24″x 5″
Front axle, diameter	2 3/16″	2 3/8″	2 11/16″
Rear axle, diameter	2 3/16″	2 3/8″	2 11/16″
Gauge center to center of wheels	4′-6″	4′-10″	5′-4″
Hauling Stub.			
Three point suspension frame.			
Main frame members, size	5″Ch.	6″Ch.	7″Ch.
Cross members, size	5″Ch.	6″Ch.	7″Ch.
Steel bed plate for mounting power unit, thickness	3/16″	3/16″	1/4″
Adjustable jack on front axle for power loader mixers.			
Mixing Drum —			
Capacity mixed concrete see A. G. C. Table page 55.			
Inside dimensions	42 1/8″D. x 26″	48″D. x 28″	55″D. x 32″
Diameter feed opening	18″	20″	20″
Diameter discharge opening	18″	20″	20″
Drum steel plate with semi-steel ring gear.			
Shell thickness	1/8″ & 9/64″	9/64″	3/16″
Blade thickness	3/16″	3/16″	3/16″
Drum tracks, machine turned			
Drum track thickness	21/32″	3/4″	7/8″
Drum speed, R.P.M	17½	16	16
No. of blades	8	10	10
Spur gear drive, pitch and face	1¼″P. 2½″F.	1¼″P. 2½″F.	1⅜″P. 2¾″F.
Drum Rollers —			
Rollers machine turned, dimensions, diameter and face	10″ x 1¼″	10″ x 1¾″	12″ x 2¾″
Turn with shaft.			
Shafts turn in renewable bronze bushings (self aligning).			
Shafts turned and polished, diameter	1 11/16″	1 11/16″	1 15/16″
No. of rollers	4	4	4
Driving Unit —			
Cut gears for electric motor, face and pitch	5D.P.	5D.P.	4D.P.
Cut gears for gasoline engine, face and pitch	1½″F.	1½″F.	2¼″F.
Drive shaft turns in self aligning babbitted bearings, diameter	1 11/16″	1 11/16″	2 3/16″
Speed of drive shaft, R.P.M	110	111.6	109
Discharge Unit —			
Pivoted discharge chute swings in ⅔ of distance across drum.			
Discharge high enough for wheelbarrows or carts.			
Discharge control from both sides of mixer.			
Discharge chute, thickness	9/64″	9/64″	3/16″
No. of discharge buckets	8	10	10
Power Charger —			
Pivoted type.			
Outside band friction hoist clutch and brake.			
Automatic skip stop at top.			
Closed end skip.			
Skip cable size	5/16″	3/8″	½″
Hoist cable, size	5/16″	3/8″	½″

Power Charger — Continued	5-S	7-S	10-S
Slope of skip when raised	49°	49°	49°
Thickness of skip plates	7/64" & 1/8"	1/8" & 9/64"	9/64"
Thickness of skip nose	1/8"	9/64"	9/64"
Automatic skip cable equalizer.			
Auxiliary Material Hoist —			
Load with single line, lbs.		1800	2000
Load with double line, lbs.		3600	4000
Speed with single line, F.P.M.		70	70
Speed with double line, F.P.M.		35	35
Auxiliary Water Pump —			
Marine type geared pump, size	1 1/4"	1 1/4"	1 1/4"
Gallons per minute	20	20	20
Feed Chute for Wheelbarrows —			
Width	36"	40"	42"
Thickness of plate	9/64"	9/64"	9/64"
Thickness of skip nose	1/8"	9/64"	9/64"
Height from wheelbarrow platform to ground	28"	26"	
Height from platform to hopper	10 1/4"	13"	
Water Tank —			
Capacity gallons	8	12	16
Automatic measuring type.			
Size of control valve	1 1/2"	1 1/2"	2"
Tested to 150 lbs. pressure.			
Power Units —			
Standard			
Gasoline Engine	LeRoi	LeRoi	LeRoi
No. of Cylinders	1	2	4
Rated Horsepower	4	8	10
Cooling System	Hopper	Hopper	Radiator
Engine Clutch	No	Yes	Yes
Magneto, make	Eisemann	Eisemann	Eisemann
Carburetor, make	Zenith	Zenith	Zenith
Air cleaner, make	Protectomotor	Protectomotor	Protectomotor
Lockable steel house.			
Special			
Gasoline Engines	Novo LeRoi	Novo	F. & J.
No. of Cylinders	2	2	2
Rated Horsepower	6	9	10
A. C. Elec. Motor, 850 R.P.M. squirrel cage type, H.P.	3	5	7 1/2
D. C. Elec. Motor, 850 R.P.M. compound wound type, H.P.	3	5	7 1/2
Radiator can be furnished as extra on 2 cyl., 8 H.P., LeRoi on 7-S.			
An engine clutch can be furnished as an extra on the 4 H.P., single cylinder LeRoi on the 5-S			

Lubrication —

Compression grease cups.

In General —

All mixers are thoroughly tested under power before loading.
Two coats of weather resisting paint.
Set of tools furnished with each mixer.

Smith Mixers and Pavers are being constantly improved and we therefore reserve the right to change the above specifications at any time.

Specifications 14-S, 21-S, 28-S Smith Non-Tilting Mixers.

Complying with A. G. C. Standards

For Standard and additional equipment see pages 33, 35 and 37; for Special Power Plants see "Power Units" on opposite page.

Frame and Trucks —	14-S	21-S	28-S
Front wheels, size inches (steel)	24″ x 6″	24″ x 6″	.....
Rear wheels, size inches (steel)	30″ x 6″	24″ x 6″	.....
Front Axle	3″ Square	3″ Square	.....
Rear Axle, diameter	2 11/16″	2 11/16″	.....
Hauling stub.			
Gauge center to center of wheels	5′0″	5′2 1/2″	....
Three point suspension			
Main frame members, size	8″ Ch.	9″ Ch.	8″ Ch.
Cross members, size	8″ Ch.	9″ Ch.	8″ Ch.
Steel bed plate for mounting power, thickness	1/4″	1/4″	1/4″
Adjustable jack on front axle for power loader mixers.			
Mixing Drum			
Capacity mixed concrete, see A. G. C. Table page 55.			
Inside dimensions	54 3/4″ D. x 42″	59″ D. x 44″	68″ D. x 44″
Diameter feed opening	20″	20″	24″
Diameter discharge opening	20″	20″	24″
Drum steel plate with semi-steel ring gear and tracks			
Shell Thickness	3/16″	3/16″	1/4″
Blade Thickness	1/4″	1/4″	1/4″
Drum tracks, machine turned			
Drum track thickness	7/8″	1″	1″
Drum speed, R. P. M.	16	16	16
No. of blades	6	6	7
Spur gear drive, pitch and face	1 3/8″ C. P. 2 3/4″ F.	1 1/2″ C. P. 3″ F.	1 1/2″ C. P. 3 1/4″ F.
Drum Rollers —			
Rollers machine turned, dimensions	13″ D. 3 1/2″ F.	13″ D. 4″ F.	13″ D. 4″ F.
Turn with shafts.			
Shafts turn in bronze bushed bearings.			
Shafts, turned and polished steel, diameter	2 7/16″	2 7/16″	2 7/16″
No. of rollers	4	4	4
Driving Unit —			
Cut gears for electric motor, pitch and face	4D.P. 2 1/2″F.	3D.P. 3″F.	3D.P. 3″F.
Cut gears for gasoline engine, pitch and face	3DP. 3″F.	3DP. 3″F.	3DP. 3″F.
Drive shaft, turned and polished steel, diameter	2 7/16″	2 7/16″	2 15/16″
R. P. M. of drive shaft	109	116	108
Discharge Unit —			
Pivoted discharge chute swings in 2/3 of distance across drum.			
Operated by hand wheel from either side of drum.			
Discharge chute, thickness	3/16″	3/16″	1/4″
No. of discharge buckets	6	6	7
Power Charger —			
Pivoted type			
Outside band friction hoist clutch and brake			

Power Charger — Continued	14-S	21-S	28-S
Automatic skip stop at top.			
Closed end skip.			
Skip cable, size	1/2″	1/2″	.....
Hoist cable, size	3/8″	3/8″	.....
Slope of skip when raised.			
Thickness of skip plate	1/4″	1/4″	.....
Thickness of nose	1/4″	1/4″	.....
Automatic skip cable equalizer.			
Batch Hopper —			
Dimensions at top	3′-2″ x 5′-0″	3′-4″ x 5′-4″	4′-3″ x 6′-3″
Plate thickness	1/8″ — 3/16″	3/16″	3/16″ — 1/4″
Gate opening	18″	18″	22″
Gate operated by hand lever.			
Feed Chute —			
Width	3′-4″	3′-4″	.....
Thickness of plate	1/8″	1/8″	.....
Water Tank —			
Capacity gallons	22	32	48
Automatic measuring type			
Size of control valve	2″	2 1/2″	3 1/2″
Tested to 150 lbs. hydrostatic pressure.			
Power Units —			
Standard			
Gasoline Engine	Le Roi	Waukesha	Waukesha
No. of Cylinders	4	4	4
Rated Horsepower	15	35	35
Cooling System	Radiator	Radiator	Radiator
Engine Clutch	Yes	Yes	Yes
Magneto Make	Eiseman	Eiseman	Eiseman
Carburetor Make	Zenith	Zenith	Zenith
Air Cleaner, Make	Protectometer	United	United
Lockable steel house.			
Special			
Steam Engine, Horsepower	10	14	18
Boiler, Horsepower	12	15	20
A. C. Electric Motor max. speed 850 R. P. M. squirrel cage type, Horsepower	10	15	20
D. C. Electric Motor, max. speed 850 R. P. M. compound wound type, Horsepower	10	15	20

Lubrication —

Compression grease cups.

In General

All mixers are thoroughly tested under power before loading.
Two coats of weather resisting paint.
Set of tools in lockable steel box furnished with each mixer.

Smith Mixers are being constantly improved and we therefore reserve the right to change the above specifications at any time.

Specifications: 2½-S, 3½-S, 5-S, 7-S, 10-S Smith Tilting Mixers

Complying with A. G. C. Standards

For Standard and additional equipment see pages 24, 25, 26, 28 and 30; for Special Power Plants see "Power Units" on opposite page.

Frame and Trucks —	2½	3½	5-S	7-S	10-S
Front wheels, size (steel)	None	24″ x 3″	24″ x 4″	24″ x 5″	24″ x 6″
Rear wheels, size, (steel)	24″ x 3″	24″ x 3″	24″ x 4″	24″ x 5″	24″ x 6″
Rubber cushion tires	24″ x 3″	24″ x 3½″	24″ x 3½″	24″ x 3½″	24″ x 5″
Clincher wheels for Ford tires	30″ x 3½″	30″ x 3½″	.....	.....	.....
Front axle, diameter	.....	1¾″	2 3/16″	2⅜″	2 11/16″
Rear axle, diameter	1¾″	1¾″	2 3/16″	2⅜″	2 11/16″
Gauge center to center of wheels	40″	48″	49″	50″	60″
Hauling stub. Three point suspension frame except on two					
Main frame members, size	2″x2½″x¼″A.	4″Ch.	5″Ch.	5″Ch.	7″Ch.
Cross members, size	3/16″Pl.	4″Ch.	5″Ch.	5″Ch.	7″Ch.
Steel bed plate for mounting power unit, size	.....	.....	3/16″	3/16″	¼″
Adjustable jack on front axle for power loader mixers.					

Mixing Drum —					
Capacity, mixed concrete see A. G. C. Table page 55.					
Inside dimensions	25½″D.x36½″	30″Dx40½″	35″D.x45″	40″D.x52″	46″D.x58¾″
Diameter feed opening	10½″	13″	15″	17″	18″
Diameter discharge opening	8″	10″	11″	12½″	12½″
Drum steel plate with semi-steel ring gear.					
Shell thickness	⅛″	⅛″	⅛″	9/64″	3/16 & 9/64″
Blade thickness	⅛″	⅛″	9/64″	9/64″	3/16″
Drum tracks, machine turned.					
Drum track thickness	½″	½″	11/16″	13/16″	1″
Drum speed, R.P.M.	15	16	16	16	14
No. of Blades	3	3	3	3	4
Gear drum drive	Bevel	Bevel	Bevel	Spur	Spur

Drum Rollers —					
No. of main rollers	2	2	2	2	2
No. of edge rollers	3	3	3	3	3
Edge rollers cast iron, chilled.					
Main rollers machine turned, dimensions	5″ x ⅞″	6″ x 1¼″	7″ x 1¾″	8″ x 2¼″	10½″ x 3″
Fixed to shaft.					
Shafts turn in bronze bushings (7-S & 10-S self aligning).					
Shaft (Main Rollers), diameter	1⅛″	1 3/16″	1 7/16″	1 7/16″	1 15/16″

Driving Unit —					
Cut gears for electric motor, face and pitch	1¼″ 6D.P.	1½″ 6D.P.	1½″ 6D.P.	1½″ 5D.P.	2¼″ 5D.P.
Cut gears for gasoline engine, face and pitch.	1¼″ 6D.P.	1½″ 6D.P.	1½″ 6D.P.	1½″ 5D.P.	2¼″ 5D.P.
Speed of drive shaft, R.P.M	140	131	152	174	125
Drive shaft, diameter	1¼″	1 7/16″	1 7/16″	1 11/16″	1 15/16″

Discharge Unit —					
Drum hand tilted for discharge	Lever	Lever	Wheel	Wheel	Wheel
Discharge high enough for wheelbarrows or carts.					
Discharge control from both sides of mixer	Yes	No	Yes	Yes	Yes

Power Charger —	2½	3½	5-S	7-S	10-S
Pivoted type — (not available on 2½-S).					
Outside band friction hoist clutch and brake.					
Closed end skip.					
Skip cable, size	.....	5/16″	5/16″	3/8″	1/2″
Hoist cable, size	.....	5/16″	5/16″	3/8″	1/2″
Slope of skip when raised	.....	49°	49°	49°	49°
Thickness of skip plate	.....	9/64″ & 3/32″	9/64″ & 3/32″	9/64″ & 1/8″	9/64″
Thickness of skip nose	.....	1/8″	1/8″	9/64″	9/64″
Automatic skip cable equalizer.					
Automatic knockout for hoist clutch.					
Feed Chute —					
Width	24″	31″	36″	36″	.....
Thickness of plate	1/8″	1/8″	1/8″	9/64″	.....
Height from ground	40½″	44″	46½″	51½″	.....
Low Charging Platform —					
Height of Platform	.....	30½″	33″	36″	.....
Height from platform to feed chute	.....	13½″	13½″	15½″	.....
Water Tank —					
Capacity, gallons	None	8	8	12	16
Automatic measuring type, except on 3½-S.	None	.....	.....	.....	.....
Size of control valve	None	1″	1½″	1½″	2″
Tested to 150 lbs. pressure	None	.....	.....	.....	.....
Auxiliary Water Pump					
Marine type geared pump, size	.....	.....	1¼″	1¼″	1¼″
Gallons per minute	.....	.....	20	20	20
Power Units —					
Standard					
Gasoline Engine	Stover—F. & J.	F. & J.	F. & J.	LeRoi	LeRoi
No. of Cylinders	1	1	1	2	4
Rated Horsepower	1½	2	3	8	10
Cooling system	Hopper	Hopper	Hopper	Hopper	Radiator
Engine Clutch	No	No	No	Yes	Yes
Magneto, Make	Wico	Wico	Wico	Eisemann	Eisemann
Air Cleaner	.....	.....	.....	Protectmotor	Protectmotor
Carburetor, Make	.....	.....	.....	Zenith	Zenith
Lockable steel house.					
Special					
Gasoline Engines	Novo	Novo	Novo—LeRoi	Novo	F. & J.
No. of Cylinders	1	1	2	2	2
Rated Horsepower	1½	2	6	9	10
Cooling System	Hopper	Hopper	Hopper	Hopper	Radiator
A. C. Electric Motor, 850 R.P.M. squirrel cage type, Horsepower	1	1	3	5	7½
D. C. Electric Motor, 850 R.P.M. compound wound type, Horsepower	1	1	3	5	7½

An engine clutch can be furnished as an extra on the 4 H.P., single cylinder LeRoi on the 5-S.
Radiator cooling can be furnished as an extra on the 2 Cyl., 8 H.P., LeRoi on the 7-S.

Lubrication —

Compression grease cups

All mixers are thoroughly tested under power before loading.
Two coats of weather resisting paint.
Set of tools in lockable steel box furnished with each mixer, except 2½-S.

Smith Mixers are being constantly improved and we therefore reserve the right to change the above specifications at any time.

Specifications 14-S, 21-S, 28-S Smith-Tilting Mixers

Complying with A. G. C. Standards

For Standard and additional equipment see pages 32, 34 and 36; for Special Power Plants see "Power Units" on opposite page.

Frame and Trucks —	14-S	21-S	28-S
Front wheels, size (steel)	24″ x 6″	30″ x 8″	30″ x 8″
Rear wheels, size (steel)	30″ x 6″	36″ x 8″	36″ x 8″
Axles cast steel skeins — built up sections.			
Hauling stub.			
Gauge center to center of wheels	56″	60″	78″
Three point suspension frame.			
Main frame members, size	7″I.	8″I.	9″I.
Cross members	5″I. & 7″Ch.	6″I. & 8″Ch.	9″I & 7″Ch.
Steel bed plate for mounting power, size depending on power used.			
Mixing Drum —			
Capacity mixed concrete see A. G. C. Table page 55.			
Inside dimensions	64¼″D.x72″	68⅞″D.x78″	76¾″D.x86½″
Diameter feed opening	19″	19″	22″
Diameter discharge opening	18″	19″	22″
Drums steel plate with semi-steel ring gear and tracks.			
Liner plates, thickness	3/16″	3/16″	3/16″
Shell thickness	3/16″	3/16″	3/16″
Blade thickness	3/16″	3/16″	3/16″
Drum tracks, machine turned.			
Drum tracks, thickness	¾″	⅞″	2″
Drum speed, R.P.M.	12	12	10
No. of blades	4	4	4
Spur gear drive.			
Drum Rollers —			
Edge Rollers, turned, dimensions	7″ x 1¾″	6½″ x 2″	9″ x 2″ 7″ x 2″
Main Rollers machine turned, dimensions	10″ x 4⅞″	11″ x 5″	12″ x 2¾″
Main Rollers keyed to shafts.			
Shafts turn in bronze bushings.			
Shaft dimensions	2″	2⅛″	2¼″
No. of Main Rollers	2	2	4
No. of Edge Rollers	6	6	6
Driving Unit —			
Cut gears for electric motor, face and pitch	2½″ 4D.P.	3″ 3D.P.	4″ 2½D.P.
Cut gears for gasoline engine, face and pitch	3″ 3D.P.	3″ 3D.P.	4″ 3D.P.
Cast gears for steam engine, face and pitch	3⅛″ x 1″	3¾″ x 1½″	3¾″ x 1¼″
Drive shaft turns in bronze bushings, diameter shaft	2″	2 3/16″	2 5/16″
Cross shaft turns in bronze bushings, diameter shaft	2″	2 3/16″	2 5/16″
Right angle bevel gear drive to spur drum pinion.			
R.P.M. of drive shaft	140	140	105
Discharge Unit —			
Drum power tilted for discharge.			
Cone friction clutches, automatic knockout.			
Machine cut tilting screw, diameter	2″	2½″	2½″
Renewable bronze traveling nut machine cut.			
Discharge control from both sides of mixer.			

Power Charger —	**14-S**	**21-S**	**28-S**
Track type.			
Outside band friction hoist clutch and brake.			
Closed end skip.			
Skip cable, size	1/2"	1/2"	1/2"
Hoist cable, size	1/2"	1/2"	1/2"
Slope of skip when raised	50°	50°	50°
Thickness of skip nose	9/64"	9/64"	3/16"
Thickness of skip plates	1/8"	1/8"	9/64"
Automatic skip cable equalizer.			
Track extensions up to 40 feet can be furnished.			

Batch Hopper —			
Dimensions of top	62" x 62"	66" x 66"	70" x 70"
Thickness of plate	3/16"	3/16"	3/16"
Size gate opening	7" x 14 1/2"	7" x 14 1/2"	10" x 16 1/2"
Angle of slope	50°	50°	50°

Water Tank —			
Capacity, gallons	22	32	48
Automatic measuring type.			
Size of control valve	2"	2 1/2"	3 1/2"
Tested to 150 lbs. pressure.			

Power Units —

Standard

Gasoline Engine	LeRoi	Waukesha	Waukesha
No. of Cylinders	4	4	4
Rated Horsepower	15	35	35
Cooling System	Radiator	Radiator	Radiator
Engine clutch	Yes	Yes	Yes
Magneto, Make	Eiseman	Eiseman	Eiseman
Carburetor, Make	Zenith	Zenith	Zenith
Air Cleaner, Make	Protectometer	United	United
Lockable steel house.			

Special

Steam Engine, Horsepower	10	14	18
Boiler, Horsepower	12	15	20
A. C. Electric Motor, max. speed 850 R. P. M. squirrel cage type, Horsepower	10	15	20
D. C. Electric Motor, max. speed 850 R. P. M. compound wound type, Horsepower	10	15	20

Lubrication —

Compression grease cups.

In General —

All mixers are thoroughly tested under power before loading.
Two coats of weather resisting paint.
Set of tools in lockable steel box furnished with each mixer.

Smith Mixers are being constantly improved and we therefore reserve the right to change the above specifications at any time.

Specifications 40-S, 56-S, 112-S Smith-Tilting Mixers

Complying with A. G. C. Standards

For Standard and additional equipment see pages 39, 40 and 41.

	40-S	56-S	112-S
Frame —			
Main I Beams, size	9″I.	10″I.	12″I.
Cross members	9″ & 7″I.	7″C.	9″I.
Mixing Drum			
Inside dimensions	72″D. x 91″	95½″D. x 9′-3″	108″x11′-5⅝″
Diameter feed opening	22″	28″	32″
Diameter discharge opening	22″	28″	32″
Drum steel plate with semi-steel ring gear and tracks.			
Shell thickness	3/16″	¼″	⅜″
Liners thickness	3/16″	¼″	¼″
Blade thickness	3/16″	¼″	⅜″
Drum tracks, machine turned.			
Drum track, thickness	2″	2¼″	3½″
Drum speed, R.P.M.	10	10	9
No. of blades	4	4	4
Spur gear drive.			
Drum Rollers —			
Lower edge rollers, turned, bronze bushed, size	9″ x 2″	20″ x 2¼″	28″ x 3½″
Upper edge rollers turned, bronze bushed, size	7″ x 2″	9″ x 2¼″	16″ x 3½″
Main rollers machined turned, dimensions	12″ x 2¾″	16″ x 3½″	24″ x 5½″
Keyed to shaft.			
Shafts turn in bronze bushings.			
Shaft dimensions	2¼″	3″	4″
No. of Main Rollers	4	4	4
No. of Edge Rollers	6	6	6
Driving Unit —			
Cut gears for electric motor, face and pitch	4″ 2¼ D.P.	5″ 3D.P.	6″ 2D.P.
Drive shaft turns in bronze bushings, diameter shaft	2¼″	3¼″	4 7/16″
Cross shaft turns in bronze bushings, diameter shaft	2¼″	3¼″	4 7/16″
Right angle bevel gear drive to spur drum pinion.			
Speed of drive shaft R.P.M.	105	95	65
Discharge Unit —			
Drum power tilted for discharge.			
Type of clutch — Automatic knockout	Cone	Cone	Spiral
Machine cut tilting screw, diameter	2¼″	3″	4″
Renewable bronze traveling nut.			
Steel gears thruout.			
Batch Hopper —			
Dimensions of top	70″ x 60″	84½″ x 90″	9′-0″ D.
Thickness of plate	3/16″	3/16″	5/16″
Size gate opening	10″ x 16½″	12″ x 21″	18″ x 30″
Angle of slope	50°	50°	50°
Water Tank —			
Capacity, gallons	two-32	two-48	Special
Automatic measuring type.			
Size of control valve	3½″	3½″	5″
Tested to 150 lbs. pressure.			
Power Units —			
Gas engine, horsepower	47	65	.....
Steam engine, horsepower	25	Special	Special
Boiler, horsepower	30	Special	Special
Electric Motor 850 R.P.M. preferably compound wound, H.P.	30	40	75

Smith Mixers and Pavers are being constantly improved and we therefore reserve the right to change the above specifications at any time.

LOOK FOR THIS PLATE ON SMITH MIXERS

The above is a facsimile of the official plate supplied by the Associated General Contractors to mixer manufacturers who conform to A. G. C. mixer standards.

A. G. C. Concrete Mixer Ratings

Adopted by Associated General Contractors of America in conjunction with Concrete Mixer Manufacturers.

Maximum Capacity of Standard Machines in Full Bags Per Batch

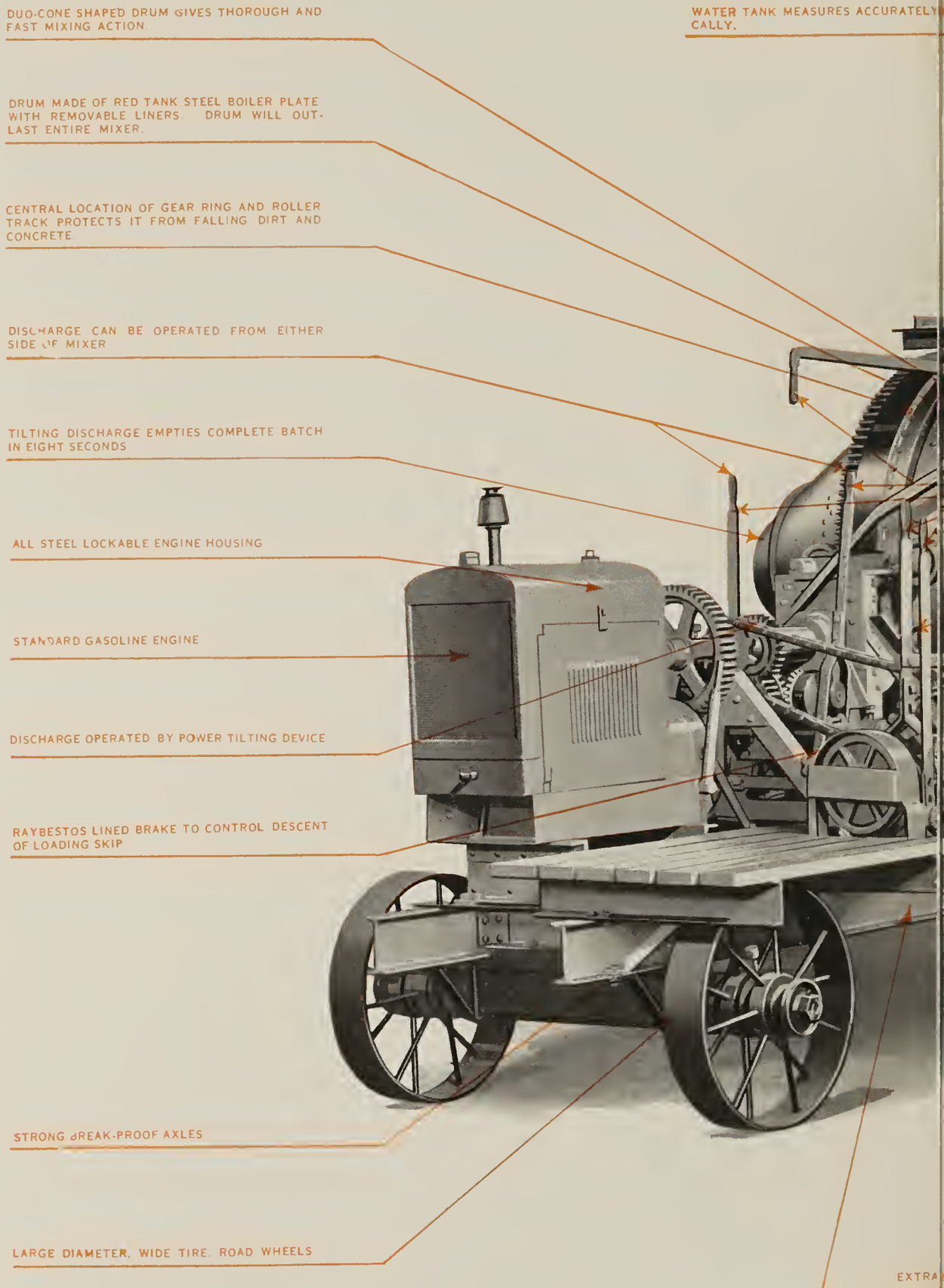
(Ratings apply with mixers on grades up to eight per cent.)

	Building Mixers							Paver
Mix Proportions	3½-S	5-S	7-S	10-S	14-S	21-S	28-S	27-E
1-1½-3	1	1	2	3	4	6	8	7
1-1½-3½	½	1	1	2	3	5	7	7
1-2-3	½	1	1	2	3	5	7	7
1-1¾-3½	½	1	1	2	3	5	7	6
1-2-3½	½	1	1	2	3	5	7	6
1-2-4	½	1	1	2	3	4	6	6
1-2½-4	½	1	1	2	3	4	6	5
1-2-5	½	½	1	2	3	4	6	5
1-2½-5	½	½	1	1	2	4	5	5
1-3-5	½	½	1	1	2	3	5	4
1-3-6	½	½	1	1	2	3	4	4

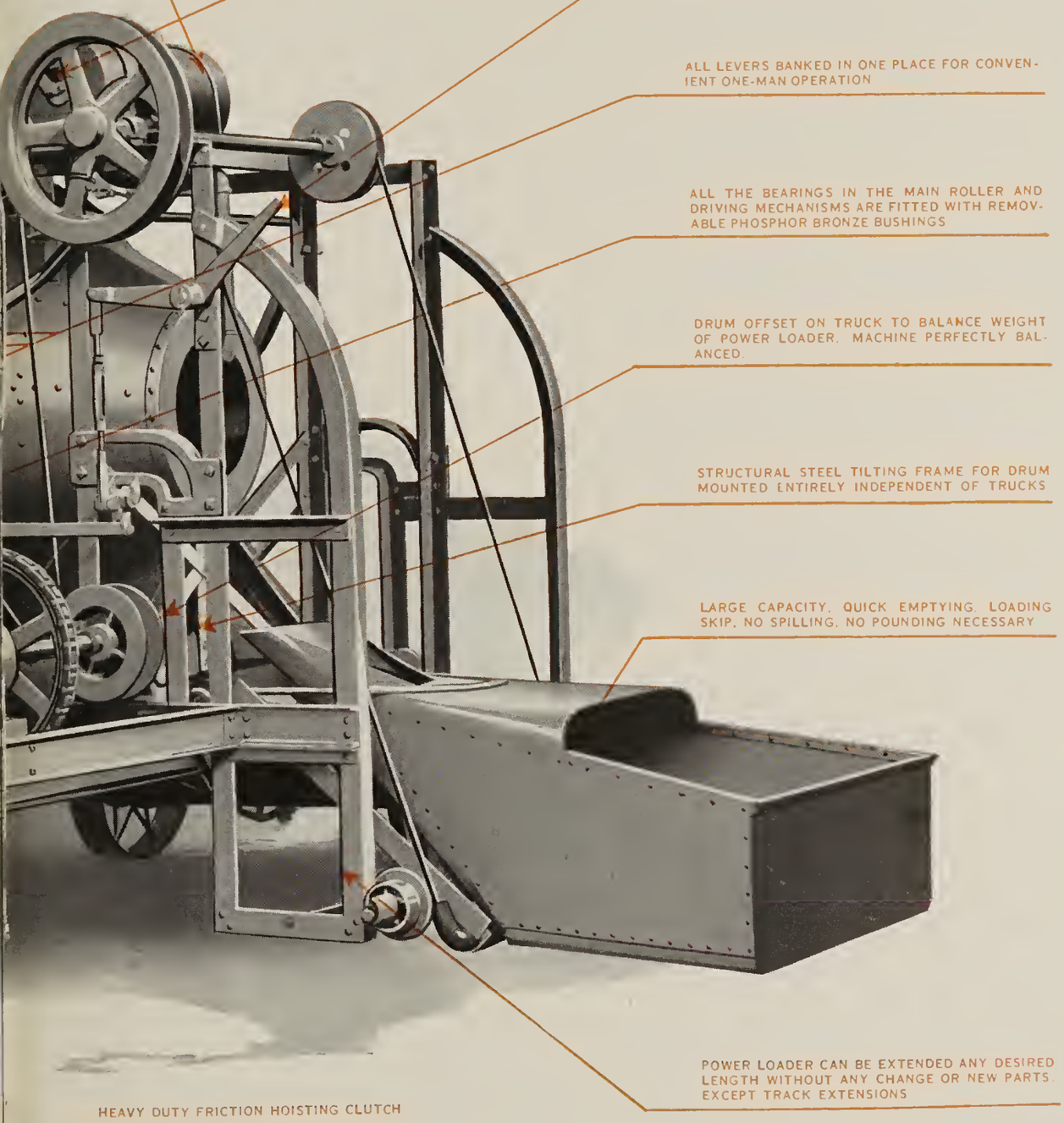
Resultant Concrete of Full-Sack Batches Above

(Ratings apply with mixers on grades up to eight per cent.)

	Building Mixers							Paver
Mix Proportions	3½-S	5-S	7-S	10-S	14-S	21-S	28-S	27-E
1-1½-3	3.75	3.75	7.50	11.25	15.00	22.50	30.00	
1-1½-3½	2.10	4.20	4.20	8.40	12.60	21.00	29.40	
1-2-3	2.10	4.20	4.20	8.40	12.60	21.00	29.40	
1-1¾-3½	2.15	4.30	4.30	8.60	12.90	21.50	30.10	
1-2-3½	2.20	4.40	4.40	8.80	13.20	22.00	30.80	No longer
1-2-4	2.35	4.70	4.70	9.40	14.10	18.80	28.20	Rated
1-2½-4	2.50	5.00	5.00	10.00	15.00	20.00	30.00	
1-2-5	2.65	2.65	5.30	10.60	10.60	21.20	31.80	
1-2½-5	2.85	2.85	5.70	5.70	11.40	22.80	28.50	
1-3-5	3.05	3.05	6.00	6.10	12.20	18.30	30.50	
1-3-6	3.45	3.45	6.90	6.90	13.80	20.70	27.60	


DUO-CONE SHAPED DRUM GIVES THOROUGH AND FAST MIXING ACTION.
WATER TANK MEASURES ACCURATELY
CALLY.
DRUM MADE OF RED TANK STEEL BOILER PLATE WITH REMOVABLE LINERS. DRUM WILL OUT-LAST ENTIRE MIXER.
CENTRAL LOCATION OF GEAR RING AND ROLLER TRACK PROTECTS IT FROM FALLING DIRT AND CONCRETE.
DISCHARGE CAN BE OPERATED FROM EITHER SIDE OF MIXER
TILTING DISCHARGE EMPTIES COMPLETE BATCH IN EIGHT SECONDS
ALL STEEL LOCKABLE ENGINE HOUSING
STANDARD GASOLINE ENGINE
DISCHARGE OPERATED BY POWER TILTING DEVICE
RAYBESTOS LINED BRAKE TO CONTROL DESCENT OF LOADING SKIP
STRONG BREAK-PROOF AXLES
LARGE DIAMETER, WIDE TIRE, ROAD WHEELS
EXTRA

These are the Big Ad


AUTOMATI-
WATER TANK ADJUSTMENT WILL GIVE ANY DESIRED AMOUNT OF WATER PER BATCH
AUTOMATIC KNOCK-OFF FOR LOADING SKIP.
ALL LEVERS BANKED IN ONE PLACE FOR CONVENIENT ONE-MAN OPERATION
ALL THE BEARINGS IN THE MAIN ROLLER AND DRIVING MECHANISMS ARE FITTED WITH REMOVABLE PHOSPHOR BRONZE BUSHINGS
DRUM OFFSET ON TRUCK TO BALANCE WEIGHT OF POWER LOADER. MACHINE PERFECTLY BALANCED.
STRUCTURAL STEEL TILTING FRAME FOR DRUM MOUNTED ENTIRELY INDEPENDENT OF TRUCKS
LARGE CAPACITY, QUICK EMPTYING, LOADING SKIP, NO SPILLING, NO POUNDING NECESSARY
POWER LOADER CAN BE EXTENDED ANY DESIRED LENGTH WITHOUT ANY CHANGE OR NEW PARTS, EXCEPT TRACK EXTENSIONS
HEAVY DUTY FRICTION HOISTING CLUTCH

/Y STEEL I-BEAM TRUCK FRAME.

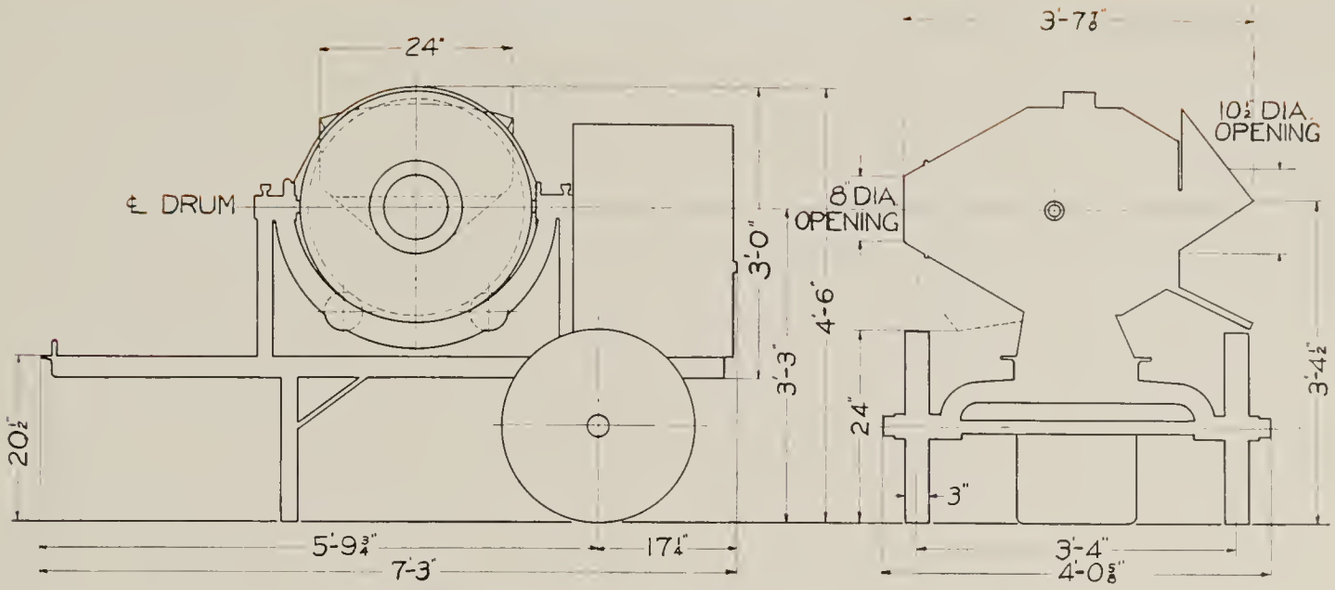
ıtages of Smith Tilters

Table of Proportions and Capacities

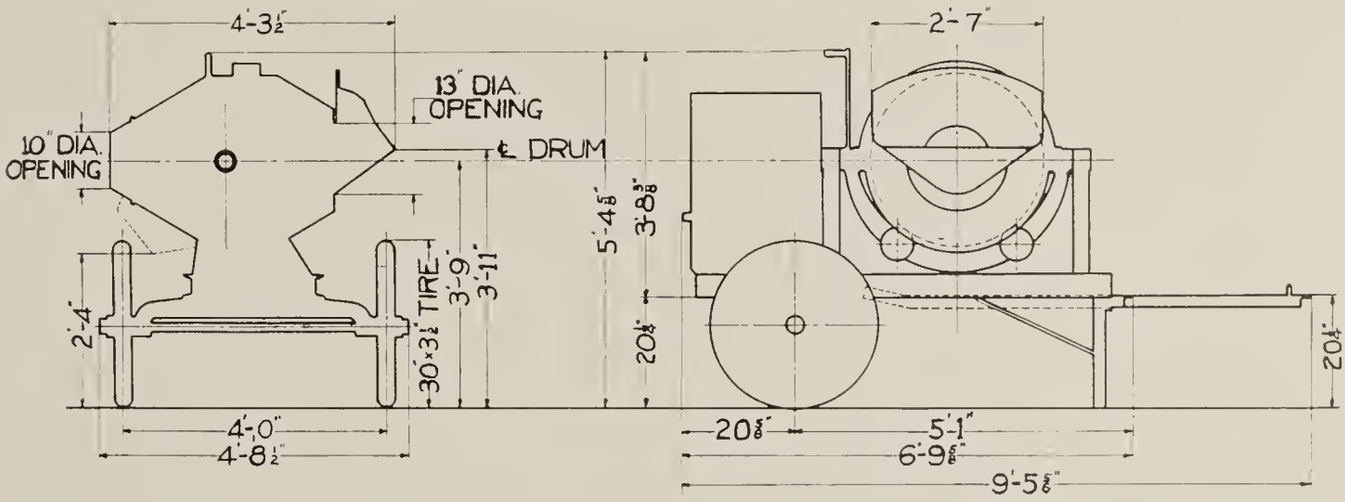
We guarantee only the mixed batch capacities of our mixers as set by the Associated General Contractors of America. See page 55. The following table is given only for the convenience of our customers, and is based upon the use of cement, average screened sand, up to 2″ stone, and approximately 1½ gallons of water per cu. ft. of concrete with voids of 40%.

Ingredients	Proportions	2½-S	3½-S	5-S	7-S	10-S	14-S	21-S	28-S	40-S	56-S	112-S
Cement	1	½ Bag	1 Bag	1 Bag	2 Bags	3 Bags	4 Bags	6 Bags	8 Bags	11 Bags	16 Bags	32 Bags
Sand	1½	¾ cu. ft.	1½ cu. ft.	1½ cu. ft.	3 cu. ft.	4½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	16½ cu. ft.	24 cu. ft.	48 cu. ft.
Stone	3	1½ cu. ft.	3 cu. ft.	3 cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	33 cu. ft.	48 cu. ft.	96 cu. ft.
Sand	1	½ Bag	½ Bag	1 Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Cement	1½	¾ cu. ft.	¾ cu. ft.	1½ cu. ft.	1½ cu. ft.	3 cu. ft.	4½ cu. ft.	7½ cu. ft.	10½ cu. ft.	15 cu. ft.	21 cu. ft.	42 cu. ft.
Stone	3½	1¾ cu. ft.	1¾ cu. ft.	3½ cu. ft.	3½ cu. ft.	7 cu. ft.	10½ cu. ft.	17½ cu. ft.	24½ cu. ft.	35 cu. ft.	49 cu. ft.	98 cu. ft.
Cement	1	½ Bag	½ Bag	1 Bag	1 Bag	2 Bags	3 Bags	5 Bags	7 Bags	10 Bags	14 Bags	28 Bags
Sand	2	1 cu. ft.	1 cu. ft.	2 cu. ft.	2 cu. ft.	4 cu. ft.	6 cu. ft.	10 cu. ft.	14 cu. ft.	20 cu. ft.	28 cu. ft.	56 cu. ft.
Stone	3	1½ cu. ft.	1½ cu. ft.	3 cu. ft.	3 cu. ft.	6 cu. ft.	9 cu. ft.	15 cu. ft.	21 cu. ft.	30 cu. ft.	52 cu. ft.	84 cu. ft.
Cement	1	½ Bag	½ Bag	1 Bag	1 Bags	2 Bags	3 Bags	5 Bags	7 Bags	9 Bags	14 Bags	28 Bags
Sand	2	1 cu. ft.	1 cu. ft.	2 cu. ft.	2 cu. ft.	4 cu. ft.	6 cu. ft.	10 cu. ft.	14 cu. ft.	18 cu. ft.	28 cu. ft.	56 cu. ft.
Stone	3½	1¾ cu. ft.	1¾ cu. ft.	3½ cu. ft.	3½ cu. ft.	7 cu. ft.	10½ cu. ft.	17½ cu. ft.	24½ cu. ft.	31½ cu. ft.	49 cu. ft.	98 cu. ft.
Cement	1	½ Bag	½ Bag	1 Bag	1 Bags	2 Bags	3 Bags	4 Bags	6 Bags	8½ Bags	12 Bags	24 Bags
Sand	2	1 cu. ft.	1 cu. ft.	2 cu. ft.	2 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	17 cu. ft.	24 cu. ft.	48 cu. ft.
Stone	4	2 cu. ft.	2 cu. ft.	4 cu. ft.	4 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	24 cu. ft.	34 cu. ft.	48 cu. ft.	96 cu. ft.
Cement	1	½ Bag	½ Bag	1 Bag	1 Bag	2 Bags	3 Bags	4 Bags	6 Bags	8 Bags	12 Bags	24 Bags
Sand	2½	1¼ cu. ft.	1¼ cu. ft.	2½ cu. ft.	2½ cu. ft.	5 cu. ft.	7½ cu. ft.	10 cu. ft.	15 cu. ft.	20 cu. ft.	30 cu. ft.	60 cu. ft.
Stone	4	2 cu. ft.	2 cu. ft.	4 cu. ft.	4 cu. ft.	8 cu. ft.	12 cu. ft.	16 cu. ft.	24 cu. ft.	32 cu. ft.	48 cu. ft.	96 cu. ft.
Cement	1	¼ Bag	½ Bag	½ Bag	1 Bag	2 Bags	3 Bags	4 Bags	6 Bags	7½ Bags	12 Bags	22 Bags
Sand	2	½ cu. ft.	1 cu. ft.	1 cu. ft.	2 cu. ft.	4 cu. ft.	6 cu. ft.	8 cu. ft.	12 cu. ft.	15 cu. ft.	24 cu. ft.	24 cu. ft.
Stone	5	1¼ cu. ft.	2½ cu. ft.	2½ cu. ft.	5 cu. ft.	10 cu. ft.	15 cu. ft.	20 cu. ft.	30 cu. ft.	37½ cu. ft.	60 cu. ft.	110 cu. ft.
Cement	1	¼ Bag	½ Bag	½ Bag	1 Bag	1 Bags	2 Bags	4 Bags	5 Bags	7 Bags	10 Bags	20 Bags
Sand	2½	⅝ cu. ft.	1¼ cu. ft.	1¼ cu. ft.	2½ cu. ft.	2½ cu. ft.	5 cu. ft.	10 cu. ft.	12½ cu. ft.	17½ cu. ft.	25 cu. ft.	50 cu. ft.
Stone	5	1¼ cu. ft.	2½ cu. ft.	2½ cu. ft.	5 cu. ft.	5 cu. ft.	10 cu. ft.	20 cu. ft.	25 cu. ft.	35 cu. ft.	50 cu. ft.	100 cu. ft.
Cement	1	¼ Bag	½ Bag	½ Bag	1 Bag	1½ Bags	3 Bags	3 Bags	5 Bags	6½ Bags	10 Bags	20 Bags
Sand	3	¾ cu. ft.	1½ cu. ft.	1½ cu. ft.	3 cu. ft.	4½ cu. ft.	9 cu. ft.	9 cu. ft.	15 cu. ft.	19½ cu. ft.	30 cu. ft.	60 cu. ft.
Stone	5	1¼ cu. ft.	2½ cu. ft.	2½ cu. ft.	5 cu. ft.	7½ cu. ft.	15 cu. ft.	15 cu. ft.	25 cu. ft.	32½ cu. ft.	50 cu. ft.	100 cu. ft.
Cement	1	¼ Bag	½ Bag	½ Bag	1 Bag	1½ Bags	2 Bags	3 Bags	4 Bags	6 Bags	9 Bags	16 Bags
Sand	3	¾ cu. ft.	1½ cu. ft.	1½ cu. ft.	3 cu. ft.	4½ cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	27 cu. ft.	48 cu. ft.
Stone	6	1½ cu. ft.	3 cu. ft.	3 cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	36 cu. ft.	54 cu. ft.	96 cu. ft.
Cement	1	½ Bag	½ Bag	1 Bag	1½ Bag	2 Bags	3 Bags	4 Bags	6½ Bags	8½ Bags	13 Bags	26 Bags
Gravel	6	3 cu. ft.	3 cu. ft.	6 cu. ft.	9 cu. ft.	12 cu. ft.	18 cu. ft.	24 cu. ft.	39 cu. ft.	51 cu. ft.	78 cu. ft.	156 cu. ft.

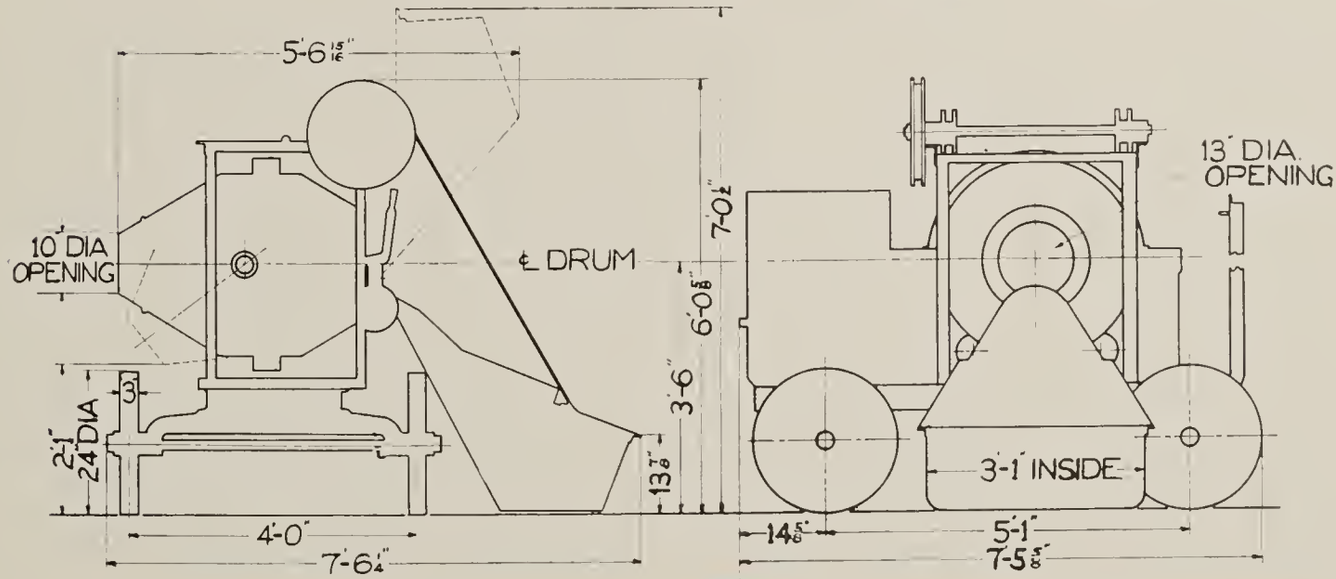
Dimensions 2½-S Tilter



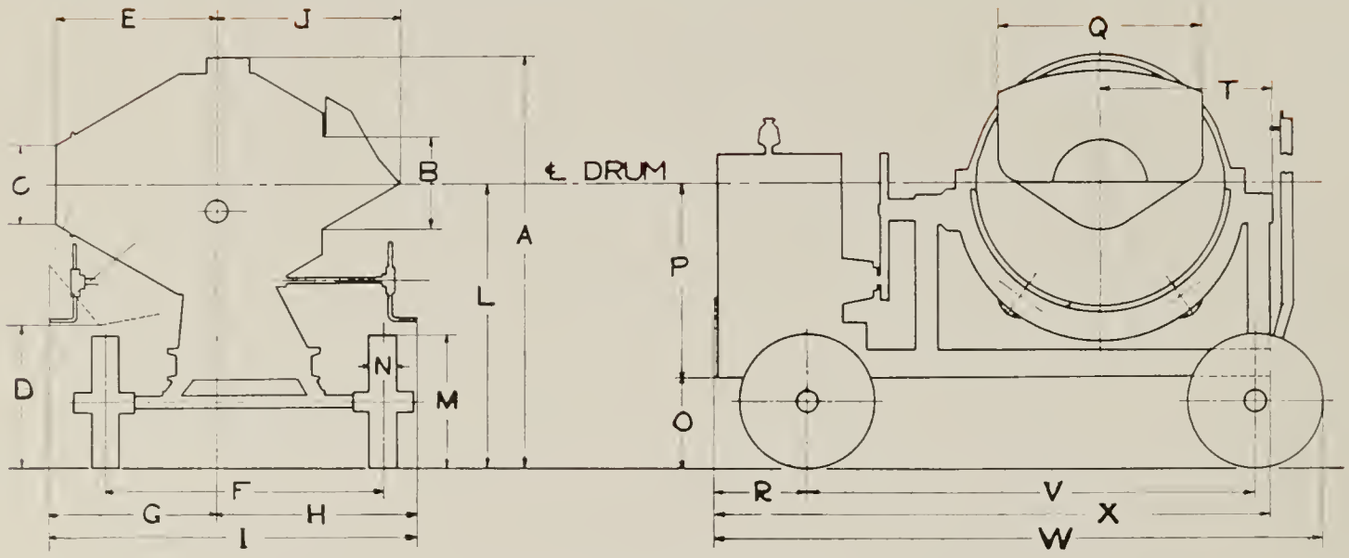
Dimensions 3½-S Tilter with Feed Chute



Dimensions 3½-S Tilter with Power Loader



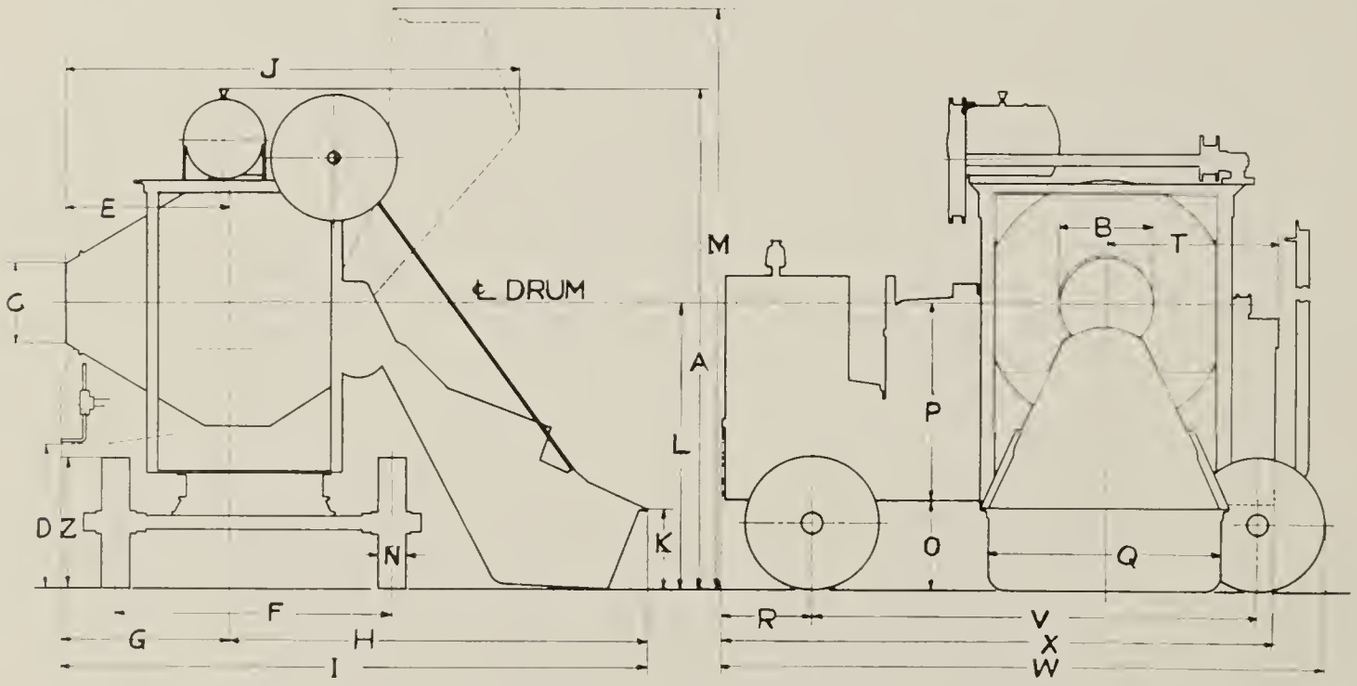
Dimensions 5-S, 7-S and 10-S Tilters



5-S and 7-S Tilt, with Feed Chute

Mixer	A	B	C	D	E	F	G	H	I	J	L	M
5	5′-5⅛″	15″	11″	2′-2″	2′-3⅜″	4′-1″	2′-1¼″	2′-8¼″	5′-4″	2′-9 11/16″	3′-9″	24″
7	6′-2⅝″	17″	14½″	2′-2″	2′-5″	4′-2″	2′-6¼″	3′-0¼″	5′-6½″	2′-9″	4′-3½″	24″

Mixer	N	O	P	Q	R	T	V	W	X
5	1″	17″	2′-4″	3′-0″	14¾″	2′-3¾″	5′-6″	7′-8¾″	6′-9″
7	5″	16″	2′-11½″	3′-0″	16⅜″	2′-6¾″	6′-8″	9′-0⅜″	8′-3″

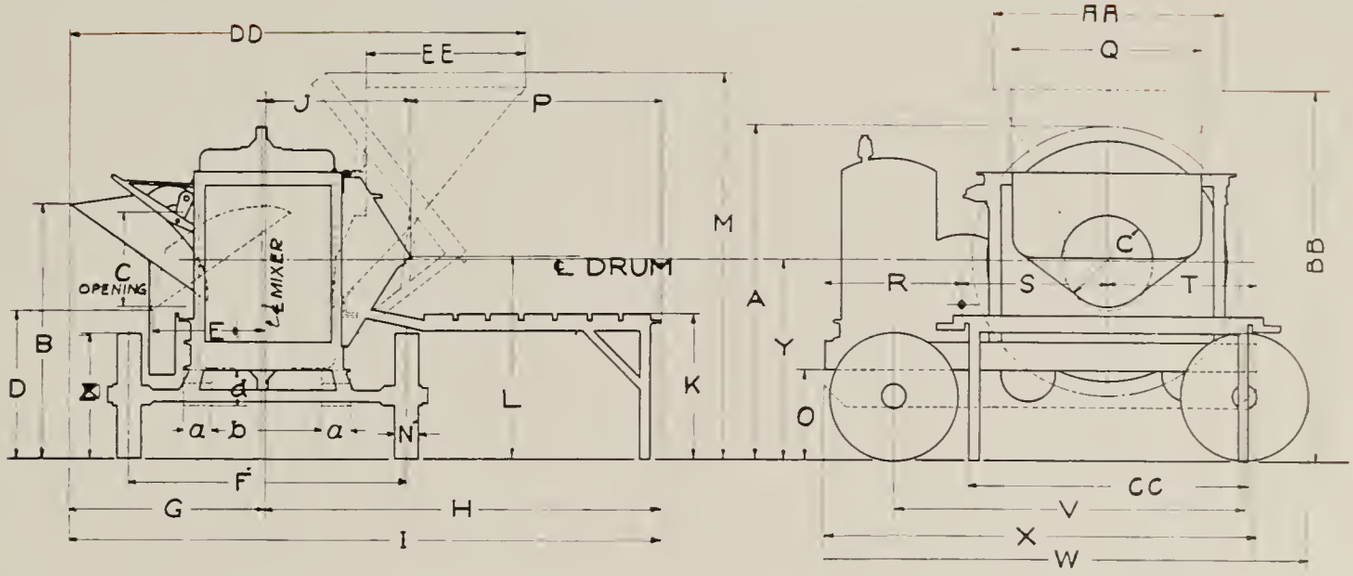


5-S, 7-S and 10-S Tilt, Power Loader

Mixer	A	B	C	D	E	F	G	H	I	J	K	L	M
5	6′-7¾″	15″	11″	2′-2″	2′-3⅜″	4′-1″	2′-1¼″	6′-2″	8′-3¼″	6′-1⅛″	14″	3′-9″	7′-7″
7	7′-4½″	17″	14½″	2′-2″	2′-5″	4′-2″	2′-6¼″	6′-4″	8′-10¼″	6′-10″	15″	4′-3½″	8′-7″
10	9′-0″	18″	12½″	2′-4″	3′-0½″	5′-0″	2′-11¾″	7′-4½″	10′-4¼″	8′-3″	13″	5′-0½″	11′-1½″

Mixer	N	O	P	Q	R	T	V	W	X	Z
5	4″	17″	2′-4″	3′-3″	14¾″	2′-3¾″	5′-6″	7′-8¾″	6′-9″	24″
7	5″	16″	2′-11½″	3′-6″	16⅜″	2′-6¾″	6′-8″	9′-0⅜″	8′-3″	24″
10	6″	16″	3′-8½″	4′-6″	2′-4⅜″	2′-11¼″	7′-3″	10′-7¾″	9′-10½″	24″

Dimensions 5-S, 7-S and 10-S Non-Tilters

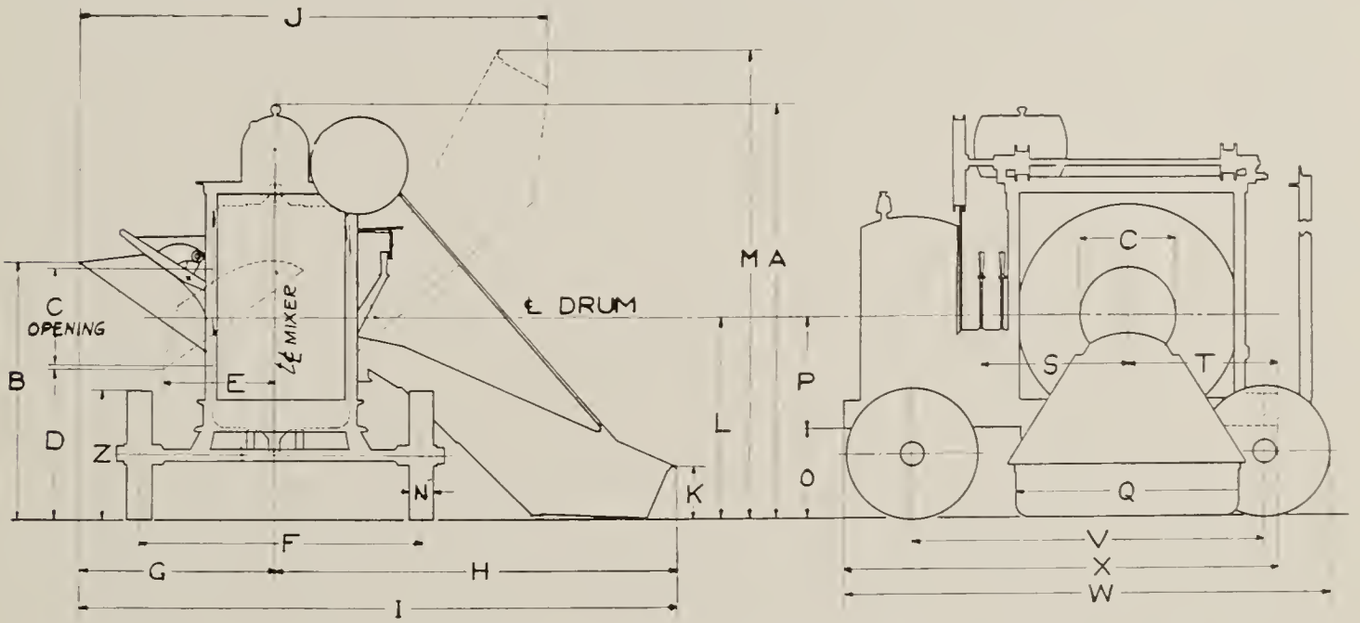


5-S, 7-S and 10-S N. T. with Batch Hopper or Feed Chute and Platform.

Mixer	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
5-S	5′-3¾″	4′-1″	18″	2′-5″	23¼″	4′-6″	3′-2¼″	6′-2½″	9′-4¾″	2′-3¼″	2′-4″	3′-2¼″	6′-3″	4″	17¼″	3′-11¼″	3′-0″
7-S	5′-7¾″	3′-8½″	20″	2′-1½″	22″	4′-10″	3′-5¼″	6′-3″	9′-8¼″	2′-5½″	2′-2″	3′-3 9/16″	6′-2″	5″	16″	3′-10″	3′-3¾″
10-S	6′-4⅞″	4′-3″	20″	2′-5″	24½″	5′-4″	3′-8½″			2′-8⅜″		4′-0¼″		6″	16½″		3′-6″

Mixer	R	S	T	V	W	X	Y	Z	AA	BB	CC	DD	EE
5-S	2′-3 1/16″	2′-3 9/16″	2′-5″	5′-8″	7′-9″	7′-0″	3′-2¼″	24″	3′-8″	5′-9¼″	4′-1″	7′-3″	2′-6″
7-S	2′-6 1/16″	2′-6 5/16″	2′-8⅝″	6′-2″	8′-6″	7′-9″	3′-3 9/16″	24″	3′-10½″	5′-11¾″	4′-4″	7′-9″	2′-8½″
10-S	2′-5¾″	2′-9⅜″	3′-3⅜″		9′-3″	7′-0″	3′-7½″	24″	4′-3″	6′-11½″		8′-7¼″	3′-0″

SKIDS			
a	b	c	d
5½″	21″		7½″
5½″	23½″		7½″
5½″	2′-5″		9″

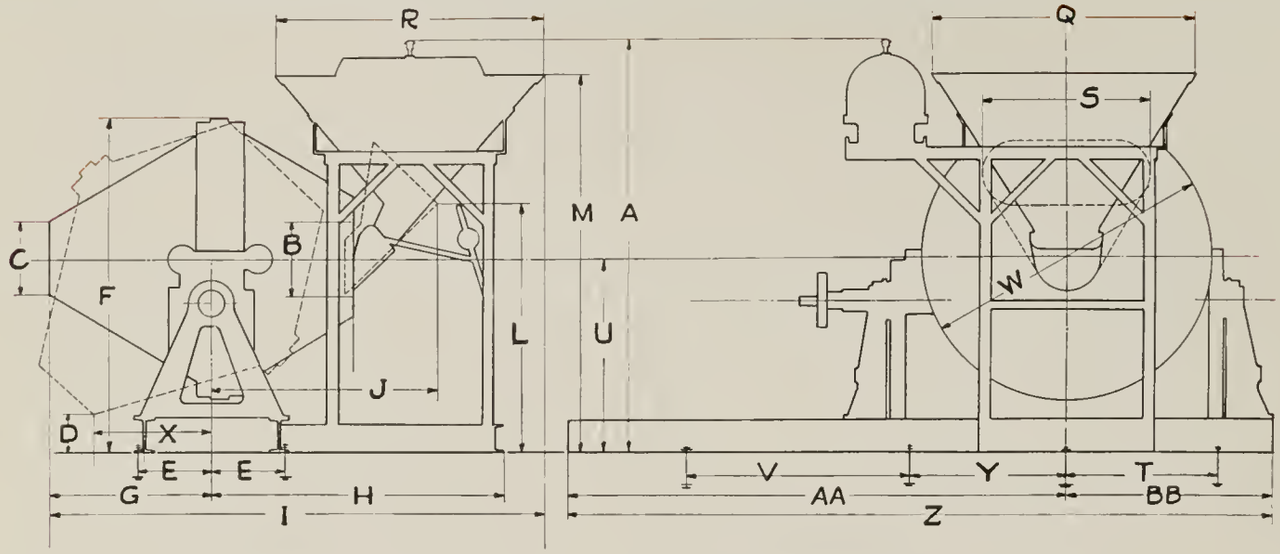


5-S, 7-S and 10-S, Non-Tilters with Power Loader.

Mixer	A	B	C	D	E	F	G	H	I	J	K	L	M
5-S	6′-7″	4′-1″	18″	2′-5″	23¼″	4′-6″	3′-2¼″	6′-5½″	9′-7¾″	7′-0″	10½″	3′-2¼″	7′-7¼″
7-S	7′-1″	3′-8½″	20″	2′-1½″	22″	4′-10″	3′-5¼″	6′-5¼″	9′-10½″	7′-2¾″	12″	3′-3 9/16″	7′-9½″
10-S	8′-1″	4′-3″	20″	2′-5″	24½″	5′-4″	3′-8½″	7′-9½″	11′-6″	7′-11″	12″	3′-7½″	9′-0″

Mixer	N	O	P	Q	S	T	V	W	X	Z
5-S	4″	17¼″	21″	3′-7″	2′-3 9/16″	2′-5″	5′-8″	7′-9″	7′-0″	24″
7-S	5″	16″	23 9/16″	3′-10″	2′-6 5/16″	2′-8⅝″	6′-2″	8′-6″	7′-9″	24″
10-S	6″	16½″	2′-3″	4′-8″	2′-9⅜″	3′-3⅜″	7′-0″	9′-3″	8′-6½″	24″

Dimensions 14-S, 21-S, 28-S, 40-S, 56-S and 112-S Tilters

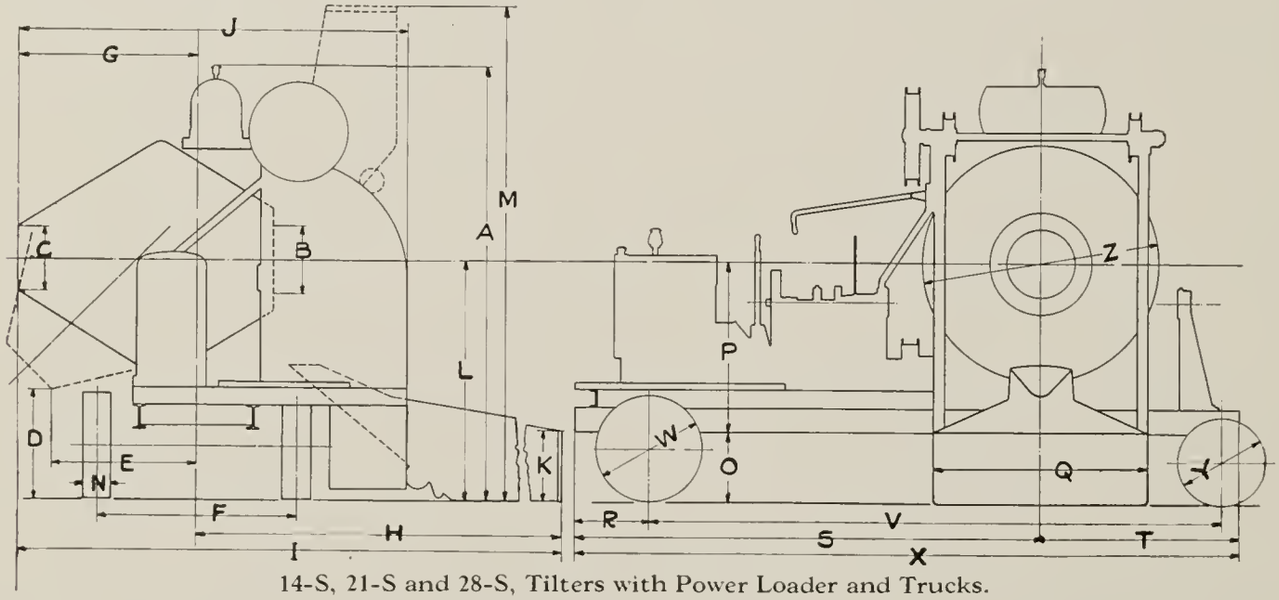


14-S, 21-S, 28-S, 40-S, 56-S and 112-S Tilters with Batch Hopper or Feed Chute.

Mixer	A	B	C	D	E	F	G	H	I	J	L	M	Q
14-S	7′-6½″	19″	18″	8″	.....	6′-5⅛″	3′-2⅝″	5′-9½″	9′-8½″	4′-5⅝″	4′-10″	7′-3″	5′-2″
21-S	8′-3″	19″	19″	9½″	.....	7′-0½″	3′-5 13/16″	6′-1″	10′-4″	4′-8¼″	5′-1″	7′-11″	5′-6″
28-S	9′-5″	22″	22″	7¾″	21¾″	7′-9¾″	4′-0″	6′-8½″	11′-5⅝″	5′-3″	5′-8¼″	8′-5″	5′-10″
40-S	9′-5″	22″	22″	4½″	21¾″	7′-9¾″	4′-4½″	6′-8½″	11′-10⅛″	5′-3″	5′-8¼″	9′-3″	5′-10″
56-S	10′-10″	2′-4″	2′-4″	9½″	24⅛″	9′-8″	4′-11″	8′-7″	14′-9″	6′-6″	6′-8¼″	11′-0″	7′-2″
112-S	.....	2′-8″	2′-8″	16″	2′-10⅜″	11′-11¼″	6′-0⅝″	12′-2″	19′-2″	.....	.....	.....	9′-0″ dia.

Mixer	R	S	T	U	V	W Inside	X	Y	Z (Gas Eng. Elec. M., Steam Eng.)	Z (Steam Eng. & Boiler)	AA (Gas Eng. or Elec. Motor or Steam Eng.)	AA (Steam Eng. & Boiler)	BB
14-S	5′-2″	3′-6″	.....	3′-8″	.....	5′-4¼″	2′-7½″	.....	14′-0″	15′-6″	9′-10¼″	11′-4¼″	4′-1¾″
21-S	5′-6″	3′-6″	.....	4′-1″	.....	5′-8⅞″	2′-7″	.....	15′-7″	17′-5″	11′-2⅝″	13′-0⅝″	4′-4⅜″
28-S	5′-10″	3′-6″	4′-3″	4′-5″	4′-0″	6′-4¾″	3′-2″	4′-0″	15′-6″	20′-0″	10′-3¾″	14′-9¾″	5′-2¼″
40-S	5′-10″	3′-6″	4′-3″	4′-5″	4′-0″	5′-11¼″	3′-2″	4′-0″	15′-6″	20′-0″	10′-3¾″	14′-9¾″	5′-2¼″
56-S	7′-6″	4′-0″	4′-5″	5′-5¼″	4′-5″	7′-11½″	3′-7″	4′-5″	18′-0″	.....	11′-9½″*	.....	6′-2½″
112-S	9′-0″ dia.	.....	5′-9″	7′-0″	11′-0″	9′-0″	4′-4½″	5′-3″	25′-0″	.....	16′-3″*	.....	7′-3″

*Eleetric Motor or Pulley only.



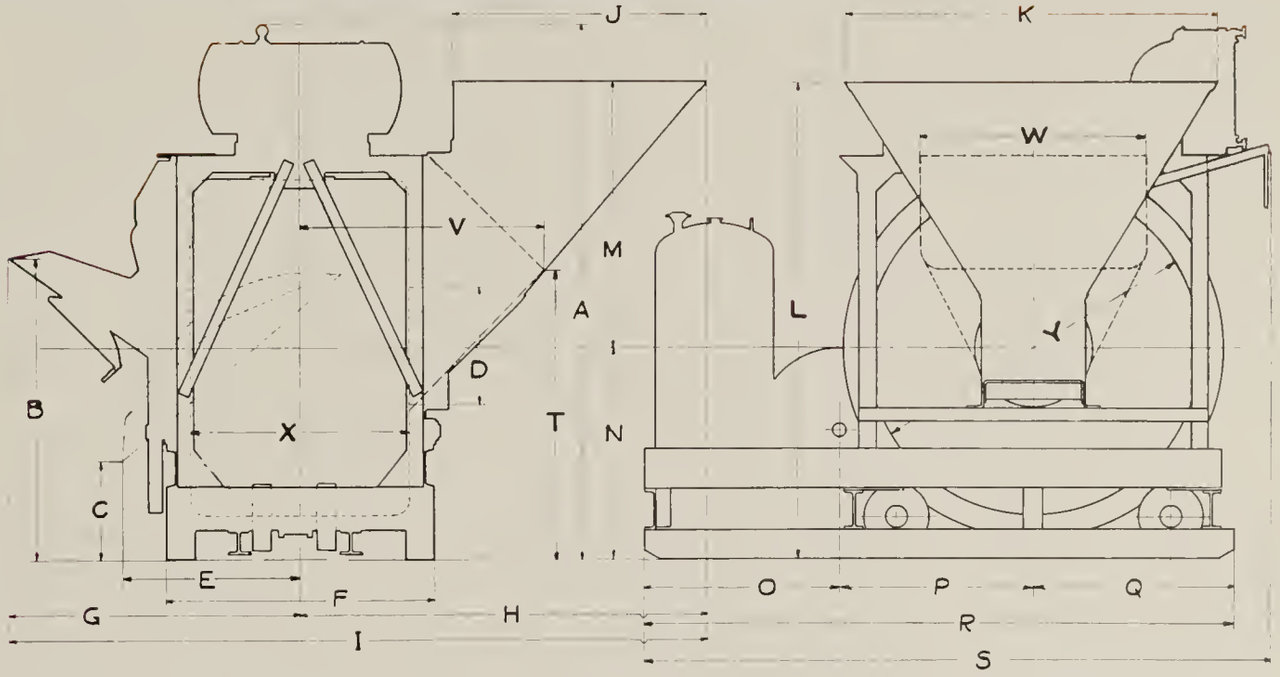
14-S, 21-S and 28-S, Tilters with Power Loader and Trucks.

Mixer	A	B	C	D	E	F	G	H	I	J	K	L	M
14-S	10′-2½″	19″	18″	2′-6¾″	3′-4½″	4′-8″	4′-2⅝″	9′-3″	13-′5⅝″	9′-1½″	20″	5′-7¾″	11′-7½″
21-S	12′-0″	19″	19″	2′-9½″	3′-7″	5′-0″	4′-6½″	10′-1¼″	14′-7¾″	10′-1¾″	22″	6′-1½″	13′-0″
28-S	12′-6½″	22″	22″	3′-0½″	4′-2″	6′-6″	5′-3″	11′-5½″	16′-8½″	11′-5″	24″	6′-9½″	14′-8″

Mixer	N	O	P	Q	R	S	T	V	W	X	Y	Z
14-S	8″-6″*	19¾″	4′-0″	5′-0″	21″	10′-10⅜″	4′-7⅝″	11′-10″	2′-6″	14′-0″	2′-0″	5′-4¼″
21-S	8″-6″*	21½″	4′-4″	5′-6″	24″	10′-6⅜″	5′-0⅜″	13′-2″	3′-0″	15′-7″	2′-6″	5′-8⅞″
28-S	8″	22½″	4′-11″	6′-0″	2′-6½″	9′-10⅛″	5′-7⅝″	14′-8″	3′-0″	15′-6″	2′-6″	6′-4¾″

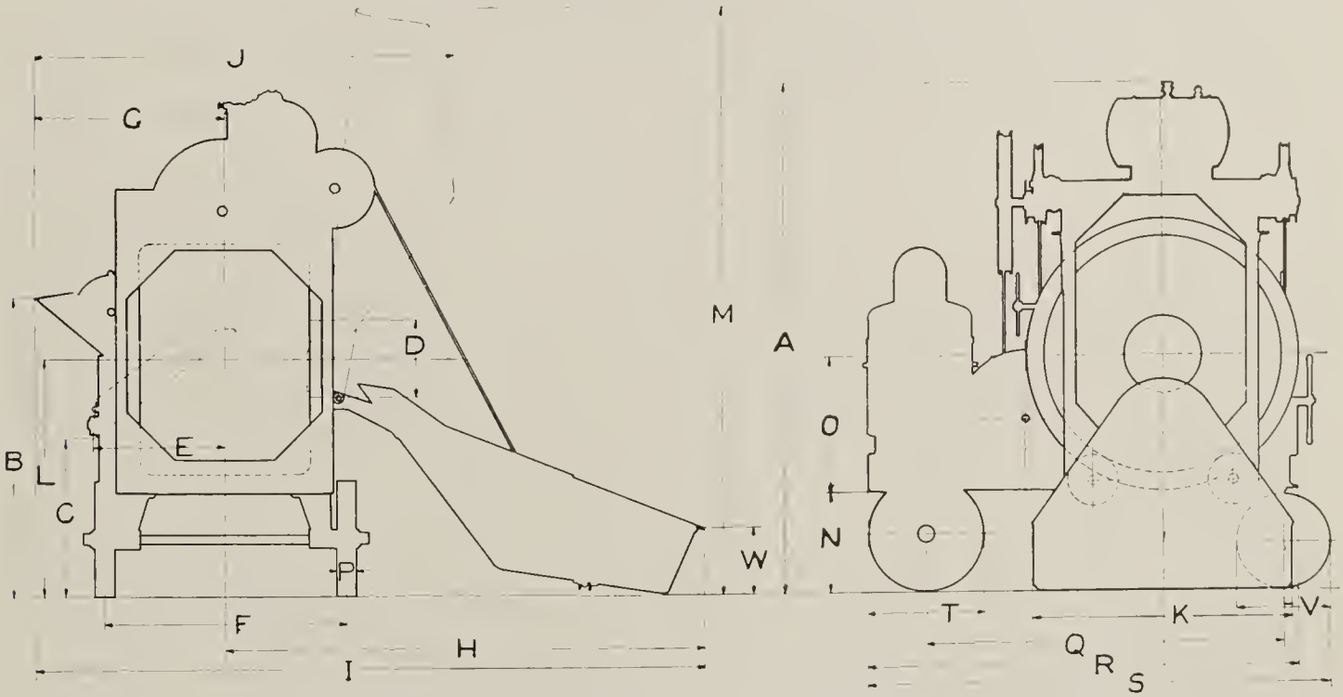
* Front.

Dimensions 14-S, 21-S, and 28-S Non-Tilters



Mixer	A	B	C	D	E	F	G	H	I	J	K	L	M
14-S	8′-2″	4′-5½″	16⅜″	20″	2′-9½″	4′-10″	4′-0″	5′-6″	9′-6″	3′-2″	5′-0″	6′-8″	3′-4¾″
21-S	9′-3″	4′-7⅞″	18⅞″	20″	2′-10″	4′-9″	4′-1¼″	5′-11″	10′-1¼″	3′-4″	5′-4″	7′-6⅜″	4′-1½″
28-S	8′-11½″	5-1″	20″	24″	3′-0″	4′-6½″	4′-11″	6′-10¼″	11′-9¼″	4′-3″	6′-3″	8′-1¼″	4′-6¾″

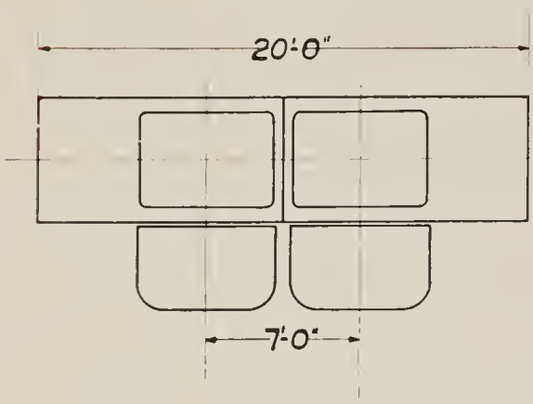
Mixer	N	O	P	Q	R	S	T	V	W	X	Y
14-S	3′-2¾″	3′-1¾″	2′-10¼″	2′-9¼″	8′-9¼″	9′-3″	4′-1⅝″	3′-8″	3′-4″	3′-8″	4′-6¾″
21-S	3′-4⅞″	3′-5″	3′-0″	2′-11¼″	9′-4¼″	9′-10″	4′-7⅞″	3′-11″	3′-6″	3′-8″	4′-11″
28-S	3′-6½″	3′-3¼″	3′-3½″	3′-5¼″	10′-0″	10′-7″	4′-10″	4′-1½″	3′-10″	3′-8″	5′-7⅞″



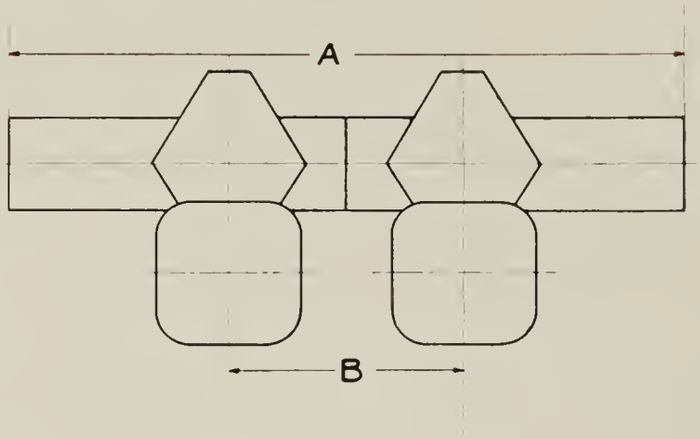
Mixer	A	B	C	D	E	F	G	H	I	J	K
14-S	10′-0″	6′-2⅛″	3′-1″	20″	2′-9″	5′-0″	4′-0″	9′-6″	13′-6″	8′-10″	4′-10″
21-S	10′-9″	6′-4½″	3′-3½″	20″	2′-10″	5′-2½″	4′-1¼″	10′-6½″	14′-7¾″	9′-1½″	5′-8″

Mixer	L	M	N	O	P	Q	R	S	T	V
14-S	4′-11⅜″	11′-9″	2′-2⅝″	3′-11½″	6″	7′-2″	8′-9¼″	9′-5″	30″	24″
21-S	5′-1½″	12′-8½″	2′-2⅝″	4′-1⅞″	6″	7′-8⅞″	9′-4⅝″	10′-0″	30″	24″

Dimensions Twin Mixers with Left and Right Hand Drive



28-S Non-Tilter

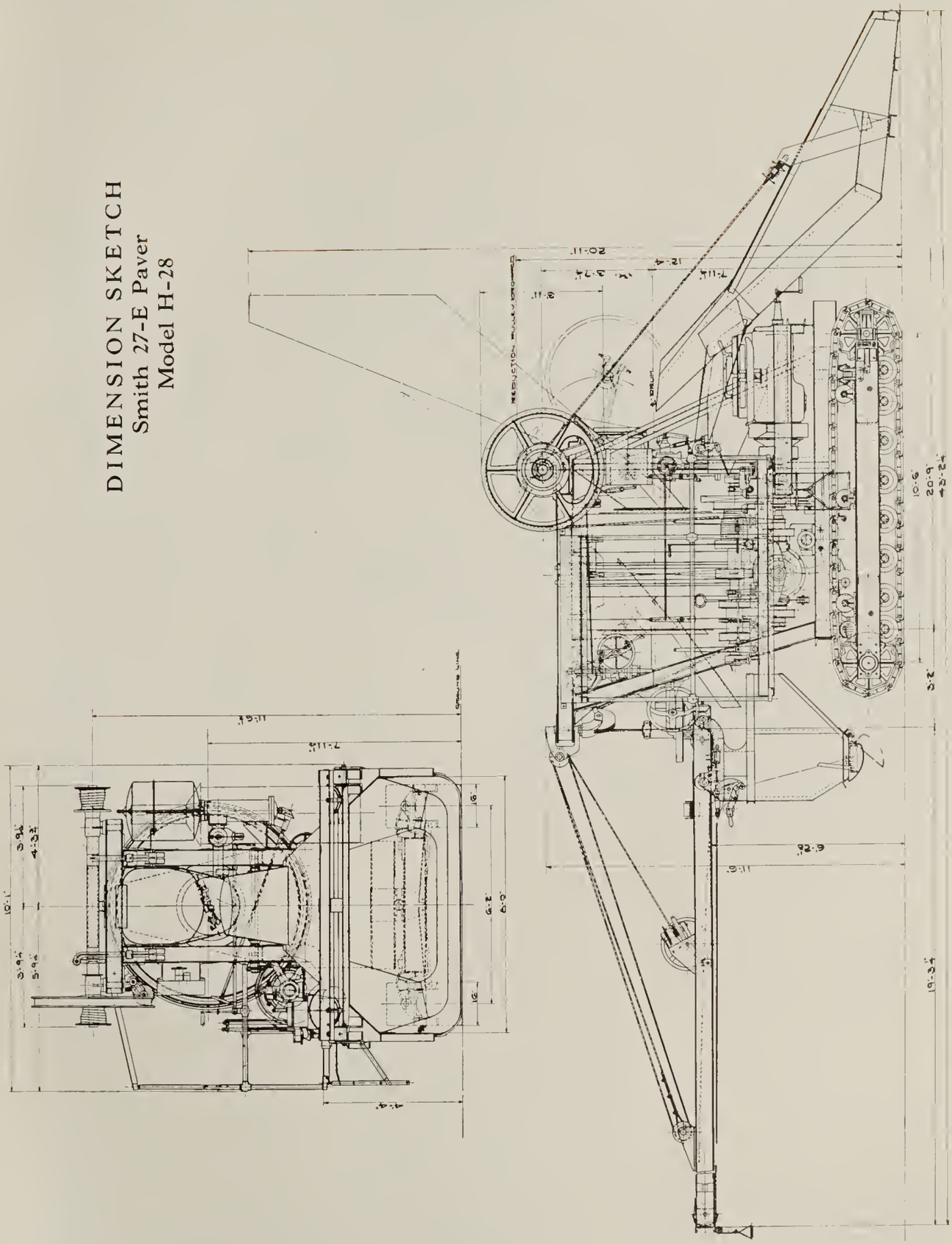


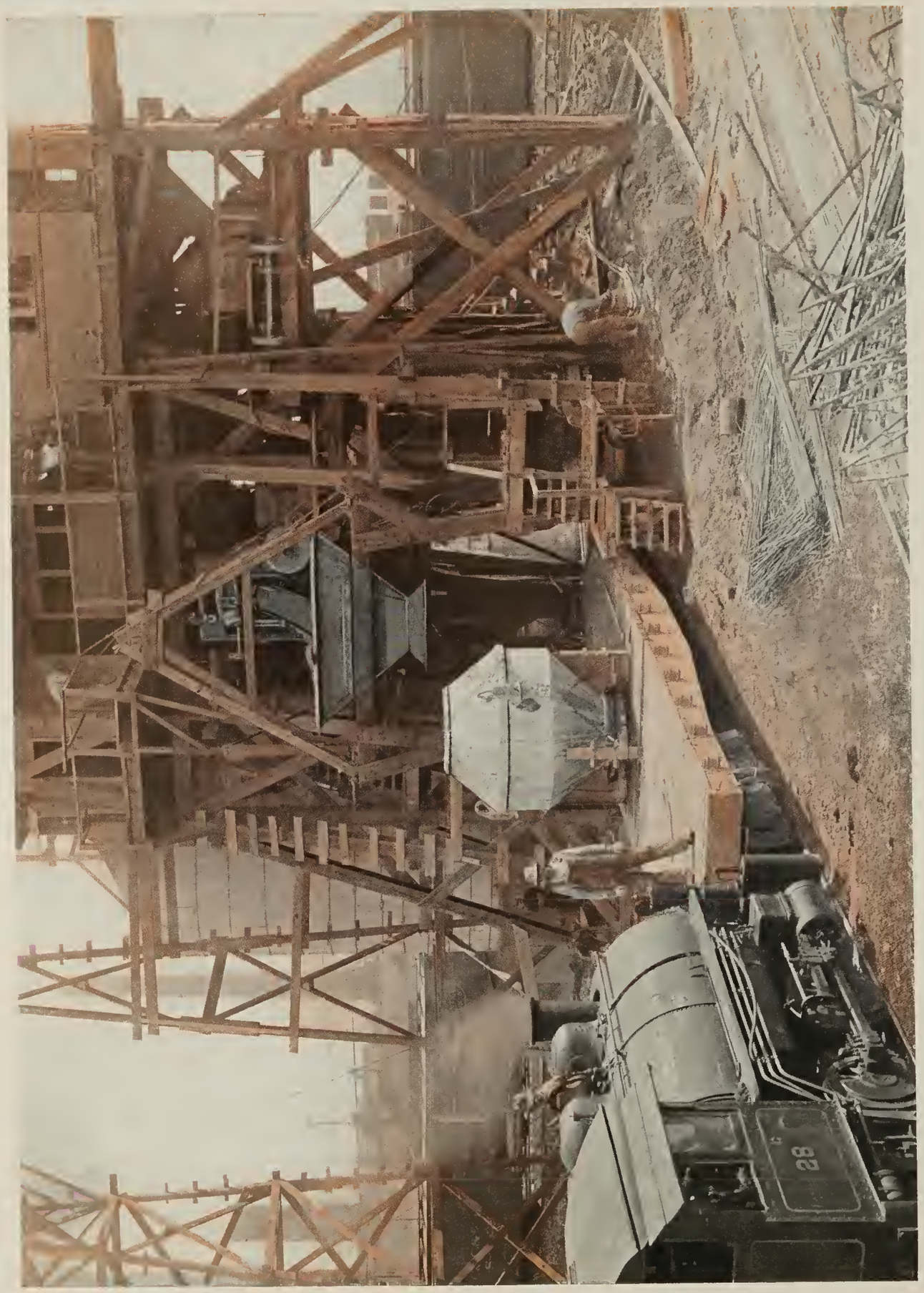
14-S, 21-S, 28-S, 40-S, 56-S and 112-S Tilters

	A. Gas Eng. Elec. M. or Steam Eng.	A. Steam Eng. & Boiler	B.
14-S	28'-0"	31'-0"	8'-3½"
21-S	31'-2"	34'-10"	8'-8¾"
28-S	31'-0"	40'-0"	10'4½"-
40-S	31'-0"	40'-0"	10'-4½"
56-S	36'-0"	.....	12'-5"
112-S	50'-0"	.....	14'-6"

Coosa River Bridge, Gadsden, Ala., G. J. Kershaw Contracting Co., Birmingham.

DIMENSION SKETCH
Smith 27-E Paver
Model H-28





Two 28-S Smith Non-Tilters on one of the new Chicago Sewage Disposal Plants, T. J. Forschner Contracting Co., Chicago

TELEGRAPHIC CODE — SMITH MIXERS

Small Tilting Mixers

DESCRIPTION OF EQUIPMENT	No. 2½-S	No. 3½-S	No. 5-S	No. 7-S
On skids with pulley no power	Jealous	Kennel	Lantern	Magister
On skids with standard gears—Note 1	Javelin	Kerfed	Lapping	Magnate
On skids with cut gears—Note 2	Jenny	Kernel	Lapse	Magot
On skids with gasoline engine, housed	Jeopard	Kettle	Larceny	Maize
On skids with electric motor—Note 3				
For trucks instead of skids, add the word	Jerker	Keystone	Larder	Major
Standard feed chute	Jerkin	Kicker	Lasher	Malady
Power loader, no tank	Jester	Kidnap	Lasso	Mallard
Power loader with water tank	Jetsom	Kilter	Lasting	Mallet
Water tank	Jetty	Kimbo	Latence	Mallow

NOTE 1—Give the speed, keyway dimensions, and shaft diameter of the engine you intend to use.
NOTE 2—Specify the speed, shaft diameter, and keyway dimensions of the motor you intend to use.
NOTE 3—Specify voltage and whether alternating or, direct current. If alternating current, specify phase and cycle.
NOTE 4—For our own standard engine only.

Large Tilting Mixers

DESCRIPTION OF EQUIPMENT	No. 10-S	No. 14-S	No. 21-S	No. 28-S	No. 40-S	No. 56-S
On skids, with pulley, no power	Burghmate	Curtation	Dualist	Fuddler	Harvest	Guilder
On skids with standard gears—Note 1	Burgout	Curtilage	Duarchy	Fudge	Handle	Gulch
On skids with cut gears—Note 2	Burmese	Curvet	Duan	Fuero	Holder	Gulf
On skids with steam engine only	Burlace	Cuskin	Dubiosity	Fugitive	Haggard	Gunnage
On skids with steam engine and boiler	Burliness	Custody	Ducat	Fulah	Halter	
On skids with gasoline engine, housed	Burnish	Custos				
On skids with electric motor—Note 3	Burnos	Custree	Ducatoon	Fulcible	Hammer	Gunwale
For trucks instead of skids, add the word	Busby	Cutose	Duffle			
Standard feed chute	Bush	Cuttle	Dulse	Fulham	Heckle	Gurgle
Gated batch hopper, no tank	Busto	Cygnet	Duenna	Fulminate	Happen	Gustation
Gated batch hopper with water tank	Butane	Cymogene	Duledge	Fumid	Harden	Guttle
Steel frame for batch hopper	Butcher	Cymose	Duetto	Fumado	Hamper	Gutter
Power loader, no tank	Butlerage	Cymation	Dumpling	Fumigate		
Power loader with water tank	Buttress	Cymbal	Dumfound	Fulsome		
Friction clutch for mixer without power—Note 4	Buzzard	Cynthia	Duress			
House for gasoline engine for mixer without power—Note 4	Byard	Cypress	Durham			

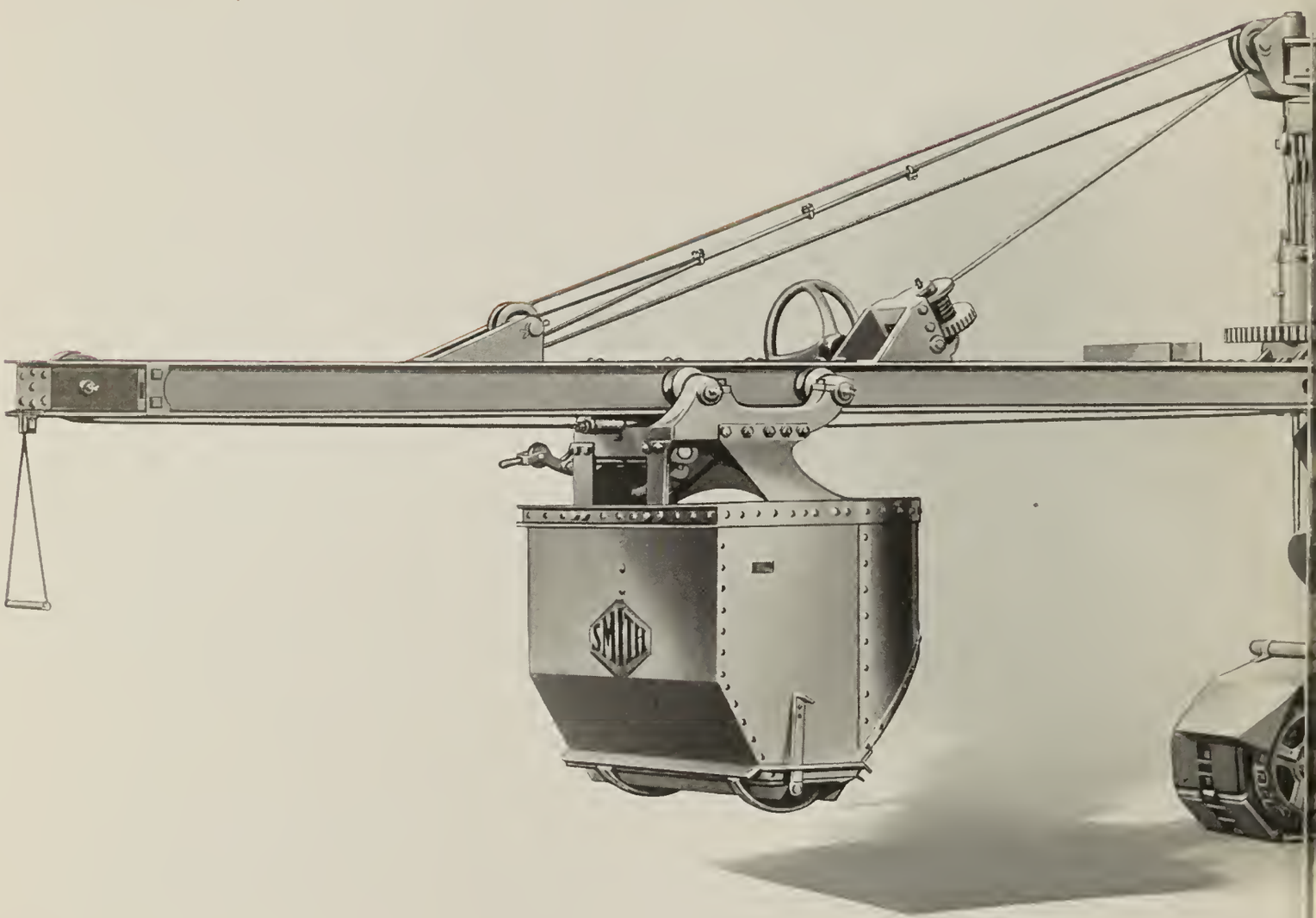
NOTE 1—Give the speed, keyway dimensions, and shaft diameter of the engine you intend to use.
NOTE 2—Specify the speed, shaft diameter, and keyway dimensions of the motor you intend to use.
NOTE 3—Specify voltage and whether alternating or direct current. If alternating current, specify number of cycles.
NOTE 4—For our own standard engine only.

Non-Tilting Mixers

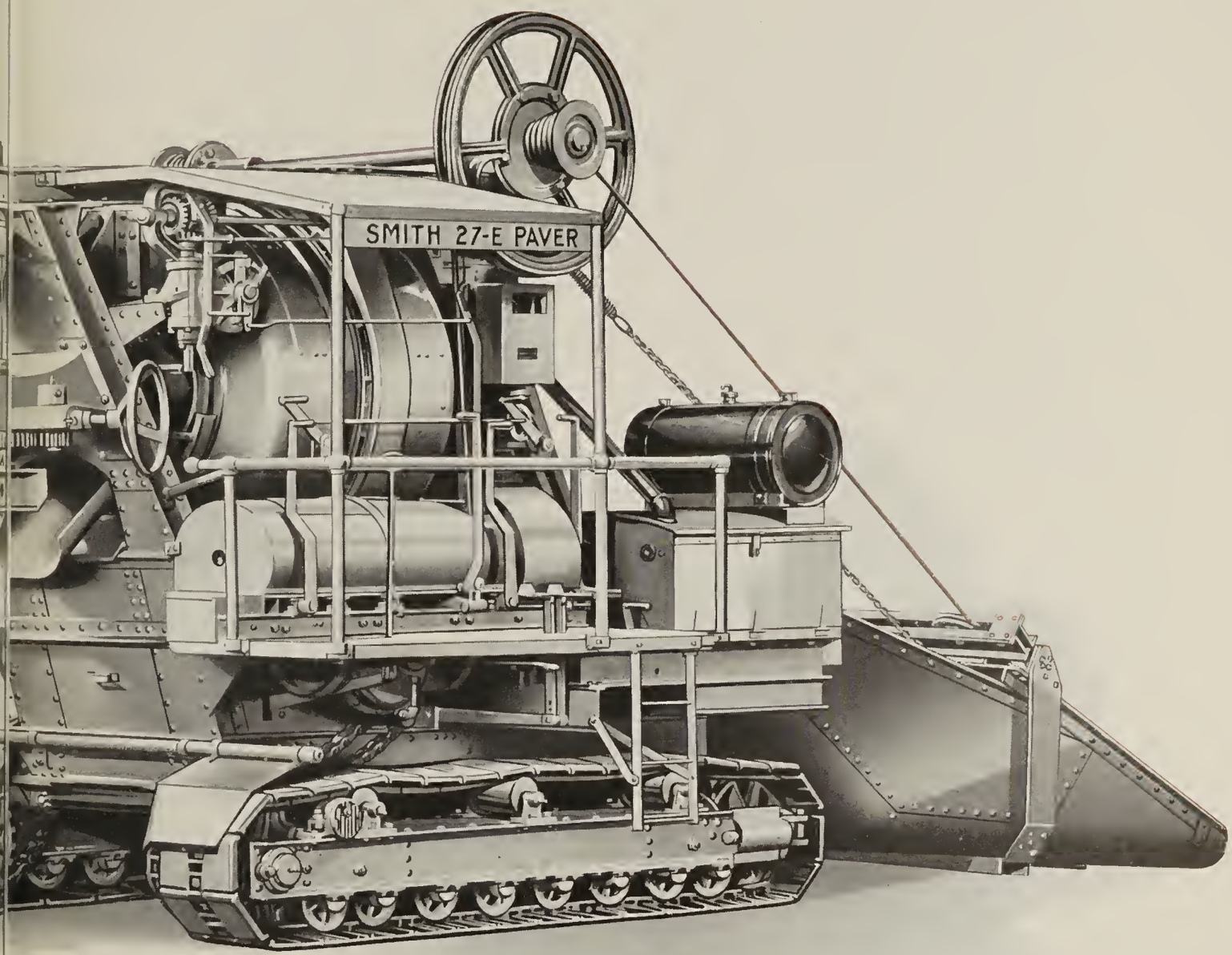
DESCRIPTION OF EQUIPMENT	5-S	7-S	10-S	14-S	21-S	28-S
On skids with pulley, no power	Sacker	Denounce	Pitch	Ermine	Mock	Oath
On skids with standard gears, no power—Note 1	Sadder	Dental	Pinch	Erogate	Mogul	Octyl
On skids with cut gears and back gearing for electric motor, no power—Note 2	Saeden	Derail	Plump	Erupt	Mohair	Odiuso
On skids with steam engine only	Safron	Derth	Pluck	Eschew	Mongrel	Ogham
On skids with steam engine and boiler	Sagace	Dextrous	Plank	Eskimo	Moss	Olien
On skids with gasoline engine, housed	Sahlit	Dialogue	Pithy	Espouse		
On skids with electric motor—Note 3	Saint	Diffuse	Packet	Eternal	Motley	Omega
For trucks instead of skids, add the word	Sajest	Dipthong	Pocket	Ethipo	Muffle	
Standard feed chute	Salker	Direct	Poled	Etude	Mugil	Ondine
Gated batch hopper, no tank	Salient		Plane	Eucalin	Mullet	Ppine
Gated batch hopper, with water tank	Sampled		Panier	Euchra	Mundane	Opium
Power loader, no tank	Samfer	Diurnal	Purse	Eugenic	Murex	
Power loader, with water tank	Sojourn	Divan	Pincer	Evasive	Mural	
Low charging hopper and platform, without water tank	Socrates	Dodge	Poult			
Low charging hopper and platform, with water tank	Somarl	Dogma	Portal			
Friction clutch, for mixer without power—Note 4	Somack	Dolabra	Pester	Exalt		
House for gasoline engine for mixer without power—Note 4	Stupor	Domain	Pense	Exhort		

NOTE 1—Specify whether for steam or gasoline engine. Specify the speed, crank shaft diameter of the engine and keyway dimensions which you intend to use.
NOTE 2—Specify the speed, keyway dimensions, and shaft diameter of the motor which you intend to use.
NOTE 3—Specify voltage and whether direct or alternating current. If alternating current, specify how many cycles.
NOTE 4—For our own standard engine only.

The New 27-E Smit



Paver Model H-28



SMITH TILTING MIXERS

Weights and Cubical Contents Boxed for Export

Mixer Size	Description	Crate No.	Weight—Pounds Gross	Tare	Net	Size Inches			Contents Cu. Ft.
2½-S	On trucks, no power, feed chute	1	1215	760	455	90	43	43	96.3
	On trucks, gas engine, feed chute	1	1490	760	730	90	43	43	96.3
	Trucks omitted, deduct 190 lbs.	.	....	....	....	..	..	..	.....
3½-S	On two wheel trucks, gas eng., feed chute	1	1890	765	1125	78	52	45	105.6
	On four wheel trucks, gas engine, feed chute	1	2035	765	1270	78	52	45	105.6
	Power omitted, deduct 235 lbs.	.	....	....	....	..	..	..	.....
	On trucks, gas eng., power loader	1	2815	1085	1730	92	62	48	158.5
	On trucks, elec. motor, power loader	1	2740	1090	1650	98	61	49	170.0
	Power omitted, deduct 300 lbs.	.	....	....	....	..	..	..	.....
	Trucks omitted, deduct 395 lbs.	.	....	....	....	..	..	..	.....
5-S	On trucks, gas engine, feed chute	1	3190	1200	1990	90	57	54	160.3
	On trucks, gas engine, power loader	1	4050	1450	2600	96	72	62	252.0
	Power omitted, deduct 450 lbs.	.	....	....	....	..	..	..	.....
	Trucks omitted, deduct 495 lbs.	.	....	....	....	..	..	..	.....
	For water tank, add 140 lbs.	.	....	....	....	..	..	..	.....
7-S	On trucks, gas engine, feed chute	1	4230	1580	2650	108	66	66	272.3
	On trucks, gas eng., pwr. loader and tank	1	4465	1610	2855	108	72	66	297.0
		2	985	350	635	66	48	36	66.0
	Power omitted, deduct 400 lbs.	.	....	....	....	..	..	..	.....
	Trucks omitted, deduct 540 lbs.	.	....	....	....	..	..	..	.....
	Water tank omitted, deduct 150 lbs.	.	....	....	....	..	..	..	.....
	Electric motor, add 160 lbs.	.	....	....	....	..	..	..	.....
10-S	On trucks, 2 cyl. gasoline engine, feed chute	1	7190	2600	4590	126	78	78	443.6
	On trucks, 2 cylinder gasoline engine, power	1	7190	2600	6030	126	78	78	443.6
	loader, tank	2	1800	600	1200	90	60	36	102.5
	For electric motor, add 210 lbs.								
	For 4 cyl. gasoline engine, add 80 lbs.								
	Power omitted, deduct 590 lbs.		No change in crate dimensions.						
	Trucks omitted, deduct 650 lbs.								
	Water tank omitted, deduct 165 lbs.								
14-S	On skids, no power, feed chute	1	4075	1197	2878	148	61	48	251.0
		2	2880	1130	1750	80	76	70	249.0
	On skids, no power, batch hopper	1	4450	1280	3170	167	55	49	268.4
		2	2880	1130	1750	80	76	70	246.0
		3	1280	570	710	63	63	60	137.8
	On skids, no power, power loader	1	5720	1460	4260	167	69	59	393.4
		2	2280	1130	1750	80	76	70	246.0
		3	1375	815	560	97	61	50	171.21
		4	1500	660	840	90	84	17	74.38
	Gas engine	1	1680	480	1200	54	48	39	58.5
	Steam engine	1	1310	390	920	60	36	30	37.5
	Boiler	1	3020	620	2400	86	38	38	71.9
	Water tank add 180 lbs. to Crate No. 1	.	....	....	....	..	..	..	.....
	Trucks add 800 lbs. to Crate No. 1	.	....	....	....	..	..	..	.....
	Electric motor and gearing	.	2100	600	1500	44	30	24	18.3
21-S	On skids no power feed chute	1	5400	1840	3560	192	63	48	336.0
		2	2930	660	2270	78	74	72	240.5
	On skids no power, batch hopper	1	5740	1830	3910	192	63	48	336.0
		2	2930	660	2270	78	74	72	240.5
		3	960	450	510	68	68	48	128.2
	On skids, no power, power loader	1	6785	1910	4875	192	68	63	336.0
		2	2930	660	2270	78	74	72	240.5
		3	2455	1145	1310	95	78	66	283.0
		4	2230	900	1330	103	97	24	138.76
	Gas engine	1	3550	700	2850	60	48	36	60.0
	Steam engine	1	1750	400	1350	68	43	34	57.0
	Boiler	1	3700	800	2900	90	40	40	83.3
	Electric motor and gearing	1	2400	600	1800	42	34	24	19.83
	Trucks, add 950 lbs. to Crate No. 1	.	....	....	....	..	..	..	.....
	Water tank, add 280 lbs. to Crate No. 1	.	....	....	....	..	..	..	.....
28-S	On skids, no power, feed chute	1	7260	1780	5480	161	72	58	388.7
		2	4090	1230	2860	89	88	86	389.78
	On skids, no power, batch hopper	1	7340	1780	5560	161	72	58	388.7
		2	4090	1230	2860	89	88	86	389.78
		3	1550	800	750	75	75	56	182.5
	Water tank omitted, deduct 475 lbs. crate 1	.....	.....	.....	.....	.....	.....	....	.....
	On skids, 15'-6" lg., no power, power loader	1	8205	1900	6305	191	75	73	605.16
		2	4090	1230	2860	89	88	86	389.78
		3	4240	1360	2880	115	85	68	376.00
		4	2335	900	1435	109	106	24	160.47
	Water tank omitted deduct 475 lbs. crate 1	.....	.....	.....	.....	.....	.....	.....	.....
	Gas engine	1	3550	700	2850	60	48	36	60.00
	Steam engine	1	1530	400	1130	71	45	36	66.75
	Boiler	1	4300	900	3400	100	48	46	127.8
	Electric motor and gearing	1	2925	825	2100	54	36	30	33.8
56-S	18' 0" Skids, no power, batch hopper	1	15800	4500	11300	56	80	224	580.7
	Drum	2	7500	1800	5700	104	104	112	701.0
	Batch hopper	3	2900	1400	1500	75	75	94	306.0
	Batch hopper frame	4	2700	1200	1500	24	66	128	117.33
	Motor and starter	5	2850	750	2100	40	52	55	66.2
	Cut Gears, add to Crate No. 2	.	.....	.....	500	No increase in dim.			
	Pulley, add to Crate No. 2	.	.....	.....	450	No increase in dim.			.....
	Water Tanks, add to Crate No. 2	.	.....	.....	500	No increase in dim.			.....

We do not guarantee the figures given here . They are approximate only and are subject to variations for which we cannot be held responsible.

SMITH NON-TILTING MIXERS

Weights and Cubical Contents — Boxed for Export*

Mixer Size	DESCRIPTION	CRATE No. 1 Weight—Pounds Gross	Tare	Net	Size—Inches L	W	H	Cu. Ft.	CRATE No. 2 Weight—Pounds Gross	Tare	Net	Size—Inches L	W	H	Cu. Ft.
5-S	On trucks, no power, low charge hopper and platform	3150	1150	2000	96	56	50	155.5							
	On trucks, gas engine, low charge hopper and platform	3550	1025	2525	96	60	50	166.6							
	On trucks, gas engine, power loader	3450	1195	2250	82	66	48	150.3	1250	700	550	60	50	36	62.5
	On trucks, electric motor, low charger hopper and platform	3650	1150	2500	96	56	50	155.5							
	On trucks, electric motor, power loader	3595	1155	2400	82	66	48	150.3	1250	700	550	60	50	36	62.5
	For water tank add 120 lbs.														
	For trucks deduct 490 lbs.														
	For charging platform deduct 150 lbs.														
7-S	On trucks, no power, low charge hopper and plaftorm	3940	1300	2640	97	60	56	188.6							
	On trucks, gas engine, low charge hopper and platform	4280	1300	2980	97	60	56	188.6							
	On trucks, gas engine, power loader	4360	1325	3035	97	69	51	197.53	1400	760	640	66	60	42	96.25
	Crosswise trucks gas engine, power loader	4360	1325	3035	97	69	51	197.53	1895	1070	825	85	56	60	165.27
	On trucks, electric motor, low charge hopper and platform	4630	1300	3330	97	60	56	188.6							
	On trucks, electric motor, power loader	4710	1325	3385	97	69	51	197.53	1400	760	640	66	60	42	96.25
	For water tank and piping, add 135 lbs.														
	For Trucks deduct 545 lbs.														
	Platform deduct 180 lbs.				No change in cubical contents										
10-S	On trucks, no power, feed chute	5115	1700	3415	111	72	48	222.							
	On trucks, no power, power loader	5300	1700	3600	111	72	48	222.	1900	800	1100	81	60	36	101.25
	On trucks, gas engine, feed chute	6100	1700	4000	111	72	48	222.							
	On trucks, gas engine, power loader	5900	1700	4200	111	72	48	222.	1900	800	1100	81	60	36	101.25
	On trucks, steam engine, power loader	5345	1800	3545	114	75	48	237.5	1900	800	1100	81	60	36	101.25
	On trucks, steam engine & boiler, power loader, Note 4	7260	1950	5310	138	75	48	287.5	1900	800	1100	81	60	36	101.25
	On trucks, steam engine, feed chute	6065	1800	4265	114	75	48	237.5							
	For batch hopper, add one crate	420	160	260	56	32	48	49.2	NOTE No. 4—This shipment requires a third crate—Weight, 1880 lb. gross, 630 lb. tare, 1250 lb. net. Size (inches) 86x38x38, cu. ft. 71.9.						
	For Water tank, add 185 lbs.														
	For electric motor, add 800 lbs.	No increase or decrease in size of crate.													
	For trucks, deduct 770 lbs.														
14-S	On trucks, no power	5450	1280	4170	167	55	49	260.4	2375	520	1855	74	68	68	198.0
	On trucks, no power, power loader	6730	2030	4700	145	91	67	511.6	3020	655	2365	68	46	43	77.8
	See Note No. 1														
	On trucks, no power, batch hopper	5450	1280	4170	167	55	49	260.4	2375	520	1855	74	68	68	198.0
	See Note No. 2														
	Steam engine, add one crate	1175	255	920	60	36	30	37.5	NOTE No. 1—This shipment requires a third crate—Weight, 990 lb. gross, 150 lb. tare, 840 lb. net; Size (inches) 53x43x21; Cu. ft. 27.7.						
	Boiler, add one crate	3020	620	2400	86	38	38	71.9							
	Gasoline engine, add one crate	2600	600	2000	56	50	28	45.4							
	Electric motor and back gearing, add one crate	1850	450	1400	44	30	24	18.3	NOTE No. 2—This shipment requires a third crate—Weight; 1280 lb. gross, 570 lb. tare, 710 lb. net; Size (inches) 63x63x60; Cu. ft. 137.8.						
	For water tank, add 180 lb. to large crate														
	Trucks omitted, deduct 1000 lb. from large crate														
21-S	On trucks, no power	4915	1650	3265	154	60	60	320.8	3940	650	3290	80	74	72	246.6
	On trucks, no power, power loader	5865	2000	3865	154	72	60	385.0	3940	650	3290	80	74	72	246.6
	See Note No. 3														
	On trucks, no power, batch hopper	5840	2000	3840	154	72	60	385.0	3940	650	3290	80	74	72	246.6
	Steam engine, add one crate	1620	470	1150	63	42	36	55.1							
	Steam boiler, add one crate	3700	800	2900	90	40	40	83.3							
	Gasoline engine, add one crate	3200	950	2250	70	60	32	77.8	NOTE No. 3—This shipment requires a third crate—Weight; 1780 lb. gross, 380 lb. tare, 1400 lb. net; Size (inches) 70x60x40; Cu. ft. 97.2.						
	Electric motor and gearing, add one crate	2400	600	1800	40	30	30	20.8							
	For water tank, add 180 lb. to large crate.														
	Trucks omitted, deduct 1400 lb. from large crate.														
28-S	On short skids for motor or pulley drive, no power	4275	825	3450	128	70	44	228.2	3850	750	3100	80	80	70	259.3
	On long skids for steam engine and boiler, no power	4520	920	3600	160	70	44	285.2	3850	750	3100	80	80	70	259.3
	Batch hopper, add one crate	1200	550	650	78	48	48	104.0							
	Steam engine, add one crate	2120	520	1600	69	44	40	70.3							
	Steam boiler, add one crate	4300	900	3400	100	48	46	127.8							
	Electric motor and gearing, add one crate	3125	825	2200	54	36	30	33.8							
	For water tank, add 310 lb to large crate.														

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World Wide Sales and Service

Smith Mixers and Pavers are sold and serviced in all of the principal cities of this country. You will find the Smith Distributor of considerable help when your jobs take you to unfamiliar localities.

In Canada, Mussens Ltd., with offices in Montreal, Toronto, Winnipeg and Vancouver have distributed the Smith product for more than 20 years. A Branch office of the T. L. Smith Company in London has supervision over production, sales and service in England, Germany, Italy and Austria. And in these countries Smith Mixers have been manufactured under license for many years.

Smith Mixers are fast and the mix is thorough, but the batch is always balanced — eliminating the pounding in mixers in which the batch is thrown from side to side. There are important reasons for the Dependability of Smiths.

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It is gratifying to the pioneer builders of Smith Mixers and Pavers to have Smith Mixers and Pavers receive the stamp of world approval. Simple and sturdy construction insuring long service are the qualities which have made the Smith outstanding: — and the Smith is Dependable.

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